STIC Search Report
EIC 1700

STIC Database Tracking Number: 169783

TO: Amanda Walke **Location: REM 9D64** **Art Unit : 1752** **December 17, 2004** **Case Serial Number: 10/769389**	**From: Les Henderson** **Location: EIC 1700** **REM 4B28 / 4A30** **Phone: 571-272-2538** **Leslie.henderson@uspto.gov**

Search Notes

STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact*:**

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found**:*
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

Access DB# 139783

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Amanda Wallle Examiner #: 75663 Date: 12/2/04
Art Unit: 1752 Phone Number 30 Serial Number: 10/769389
Mail Box and Bldg/Room Location: REM 9D64 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Bib Sheet Attached

Inventors (please provide full names):

Earliest Priority Filing Date:

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for a cmpd of structure of claim 1 (attached).

Thank You.

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: ZH	NA Sequence (#)		STN	$569.52
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)	1	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 12/17/04	Litigation		Lexis/Nexis	
Searcher Prep & Review Time: 30	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time: 90	Other		Other (specify)	

PTO-1590 (8-01)

Bib Data report

Application Title: LIGHT SENSITIVE COMPOSITION AND LIGHT SENSITIVE PLANOGRAPHIC PRINTING PLATE MATERIAL

Application Num: (in phx) 10769389 **Filing Date:** 01/30/2004
Effective Filing: 01/30/2004
(Location History) (Foreign/Continuity Data)

Status: 30/DOCKETED NEW CASE - READY FOR EXAMINATION **Status Date:** 09/15/2004

Patent Number: Not Issued **Issue Date:** N/A **Date of Abandonment:** N/A
Confirmation Number: 9442 **PALM Location:**

Examiner: 75663 WALKE, AMANDA (Assignment Data) **Group Art Unit:** 1752
Class/Subclass: 430/270.100

State or Country: JAPAN **Sheets/Drawing:** 0 **Total Claims:** 21
Independent Claims: 2

Inventors:

Last name, First name:	City:	Country or State:
OHTA, TOMOHISA	TOKYO	JAPAN
KUROKI, TAKAAKI	TOKYO	JAPAN

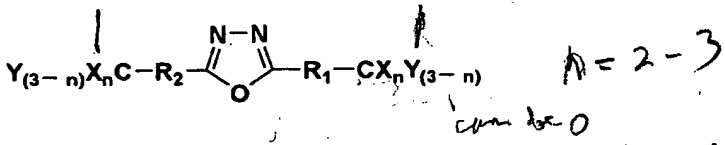
Attorneys: ALL **Attorney Docket No:** KON-1851

Interference No: **Lost Case:** No **Unmatched Petition:** No **L&R Code:** 1

What is claimed is:

1. A light sensitive composition comprising an addition polymerizable ethylenically unsaturated monomer, a photopolymerization initiator, and a polymer binder, wherein the photopolymerization initiator is a trihalomethyl group-containing oxadiazole compound represented by the following formula 1,

Formula 1



wherein R_1 and R_2 independently represent a chemical bond, or a divalent group selected from a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkyleneoxy group, an ether group, a carbonyl group, an ester group, a carbonylamino group or a sulfonylamino group, provided that R_1 and R_2 may be the same or different; X represents a chlorine atom or a bromine atom; Y represents a hydrogen atom or a substituted or unsubstituted alkyl group with a carbon atom number of from 1 to 8; and n is 2 or 3.

2. The light sensitive composition of claim 1, wherein the addition polymerizable ethylenically unsaturated monomer has a tertiary amino group in the molecule.

US 20040191691

3. The light sensitive composition of claim 1, wherein the addition polymerizable ethylenically unsaturated monomer is a reaction product of a polyhydric alcohol having a tertiary amino group in the molecule, a diisocyanate compound, and a compound having in the molecule a hydroxyl group and an addition polymerizable ethylenic double bond.

4. The light sensitive composition of claim 1, further comprising a titanocene compound as a photopolymerization initiator.

5. The light sensitive composition of claim 1, further comprising a monoalkyltriaryl-borate compound as a photopolymerization initiator.

6. The light sensitive composition of claim 1, further comprising an iron-arene compound as a photopolymerization initiator.

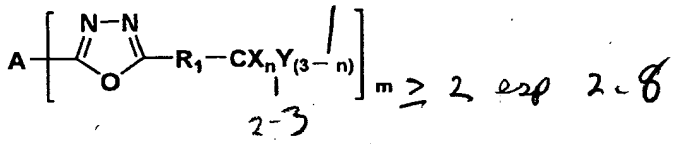
7. The light sensitive composition of claim 1, further comprising a dye having an absorption maximum in the wavelength regions of from 350 to 1200 nm.

8. The light sensitive composition of claim 7, wherein the absorption maximum is in the wavelength regions of from 390 to 430 nm.

9. The light sensitive composition of claim 1, further comprising a light-to-heat conversion material.

10. A light sensitive composition comprising an addition polymerizable ethylenically unsaturated monomer, a photopolymerization initiator, and a polymer binder, wherein the photopolymerization initiator is at least one trihalomethyl group-containing oxadiazole compound represented by the following formula 2,

Formula 2



wherein R_1 represents a chemical bond, or a divalent group selected from a substituted or unsubstituted alkylene group, a substituted or unsubstituted alkyleneoxy group, an ether group, a carbonyl group, an ester group, a carbonylamino group or a sulfonylamino group; X represents a chlorine atom or a bromine atom; Y represents a hydrogen atom or a substituted or unsubstituted alkyl group with a carbon atom number of from 1 to 8; n is 2 or 3; m is an integer of not less than 2; and A represents an m-valent organic group.

11. The light sensitive composition of claim 10, wherein m is an integer of from 2 to 8, and A represents a polyvalent aliphatic group, a polyvalent aromatic group, -O-, -S-, $-NHSO_2-$, -NHCO-, -NH- or a combination thereof.

12. The light sensitive composition of claim 10, wherein the addition polymerizable ethylenically unsaturated monomer has a tertiary amino group in the molecule.

13. The light sensitive composition of claim 10, wherein the addition polymerizable ethylenically unsaturated monomer is a reaction product of a polyhydric alcohol having a tertiary amino group in the molecule, a diisocyanate compound, and a compound having in the molecule a hydroxyl group and an addition polymerizable ethylenic double bond.

14. The light sensitive composition of claim 10, further comprising a titanocene compound as a photopolymerization initiator.

15. The light sensitive composition of claim 10, further comprising a monoalkyltriaryl-borate compound as a photopolymerization initiator.

16. The light sensitive composition of claim 10, further comprising an iron-arene compound as a photopolymerization initiator.

17. The light sensitive composition of claim 10, further comprising a dye having an absorption maximum in the wavelength regions of from 350 to 1200 nm.

18. The light sensitive composition of claim 17, wherein the absorption maximum is in the wavelength regions of from 390 to 430 nm.

19. The light sensitive composition of claim 10, further comprising a light-to-heat conversion material.

20. A light sensitive planographic printing plate material comprising a hydrophilic support, and provided thereon, the light sensitive composition of claim 1.

21. A light sensitive planographic printing plate material comprising a hydrophilic support, and provided thereon, the light sensitive composition of claim 10.

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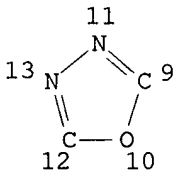

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NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
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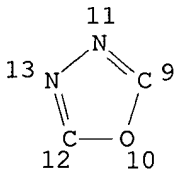

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L28  ANSWER 1 OF 33  HCAPLUS  COPYRIGHT 2004 ACS on STN
2004:990163  Document No. 141:417975  Presensitized (PS) lithography plate
     with good print wear resistance and excellent linearity in laser light
     irradiation and its platemaking.  Hirabayashi, Kazuhiko (Konica Minolta
     Medical & Graphic, Inc., Japan).  Jpn. Kokai Tokkyo Koho JP 2004325556 A2
     20041118, 60 pp.  (Japanese).  CODEN: JKXXAF.  APPLICATION: JP 2003-116930
     20030422.
GI
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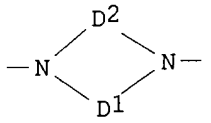

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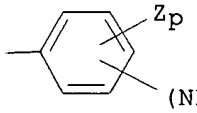

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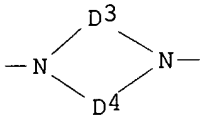


III

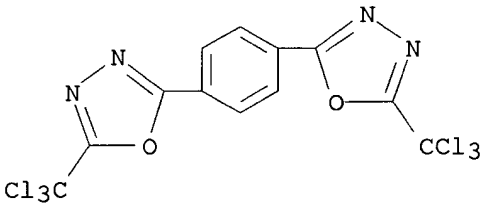
AB The PS lithog. plate comprises an Al support comprising Al 98.0-100, Cu
0-0.4, Mn 0-1.6, and Mg 0-1.4% and having thereon a photosensitive layer
formed from a photosensitive composition containing ≥1 addition-polymerizable
ethylenically unsatd. bonds, a photopolymn. initiator composition containing
≥1 Fe arene compds., and polymer bonders. Preferably, the
addition-polymerizable ethylenically unsatd. bonds are represented by the
general formula R4(m1-n1)Q1[(CH2CR1R2CO)aCONH(X1NHCO2)bX2(O2CCR3:CH2)c]n1
(Q1 = N, NEN, I, S; R4 = alkyl, hydroxyalkyl, aryl; R1, R2 = H, alkyl,
alkoxyalkyl; R3 = H, Me, Et; X1 = C2-12 divalent group; X2 = 2-4-valent
group, II; Z = alkyl, alkenyl, aryl, halo, alkoxyl, heterocyclic group; p
= 1-4 integer, q = 1-3 integer; p + q ≤5; D1, D2 = C1-5 divalent
group; E = C2-12 saturated hydrocarbylene, alicyclic group containing
C5-7-membered ring and ≤2 N, O, S in the ring, C6-12 arylene,
heterocyclic aromatic group containing 5-6-membered ring; a = 0-4 integer; b =
0,
1; c = 1, 2, 3; m1 = 2-4 integer determined by valency of Q1; n1 = 1-4 integer)
R8(g-f)Q2[(CH2CR5R6O)d[CH2CH(CH2O2CCR7:CH2)O]eH]f (Q2 = N, NGN, III; R8 =
alkyl, hydroxyalkyl, aryl; R5, R6 = H, alkyl, alkoxyalkyl; R7 =H, Me, Et;

D3, D4 = C1-5 saturated hydrocarbyl; G = C2-12 saturated hydrocarbyl, alicyclic group containing C5-7-membered ring and ≤2 N, O, S in the ring, C6-12 arylene, heterocyclic aromatic group containing 5-6-membered ring; d, e, f = 1-4 integer; q = 2-4 integer determined by valency of Q2). Preferably, the photopolymn. initiator composition contains polyhalogen compds., more preferably, polyhaloacetylamides and/or polyhalotriazines, and ≥1 colorants having. maximum absorption at 350-450 nm.

IT **222190-06-9**
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; presensitized (PS) lithog. plate with good print wear resistance and excellent linearity in laser light irradiation and its platemaking)

RN 222190-06-9 HCAPLUS

CN 1,3,4-Oxadiazole, 2,2'-(1,4-phenylene)bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)



IC ICM G03F007-029
ICS G03F007-00; G03F007-027; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 2648-61-5 17025-47-7 32760-75-1 32760-80-8 42573-57-9 59183-95-8 59626-33-4 59688-18-5 85095-67-6 97802-84-1 163342-70-9 **222190-06-9** 263339-82-8 299445-94-6 299446-72-3 330644-77-4 353498-44-9 415683-95-3 496871-55-7 735316-60-6 757219-28-6 791065-74-2, (η6-Anthracene)(η5-cyclopentadienyl)iron[2] hexafluorophosphate
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; presensitized (PS) lithog. plate with good print wear resistance and excellent linearity in laser light irradiation and its platemaking)

L28 ANSWER 2 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

2004:934211 Document No. 141:403508 Producing method of photosensitive planographic printing plate. Hirabayash, Kazuhiko (Japan). U.S. Pat. Appl. Publ. US 2004219459 A1 20041104, 41 pp. (English). CODEN: USXXCO. APPLICATION: US 2004-828081 20040420. PRIORITY: JP 2003-119577 20030424.

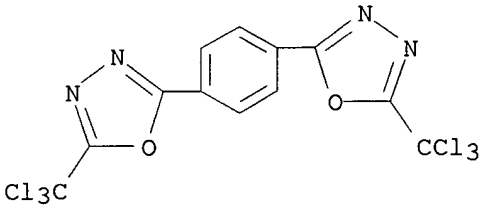
AB The object of the present invention is to provide a method for producing a photosensitive planog. printing plate having a high sensitivity and high printing durability and a low manufacturing cost. A method for producing a photosensitive planog. printing plate containing the steps of: (i) carrying out electrolysis to an aluminum support in an aqueous solution of hydrochloric acid or nitric acid so as to provide the aluminum support with a roughened surface; (ii) coating a photosensitive composition on the roughed surface of the aluminum support to obtain a photosensitive layer, the photosensitive composition containing: (A) a monomer having an ethylenic double bond which is addition polymerizable; (B) a photoinitiator composition containing an iron arene complex compound; and (C) a polymer binder, (iii) drying the photosensitive

layer.

IT **222190-06-9**
RL: TEM (Technical or engineered material use); USES (Uses)
(producing method of photosensitive planog. printing plate)

RN 222190-06-9 HCAPLUS

CN 1,3,4-Oxadiazole, 2,2'-(1,4-phenylene)bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)



IC ICM G03C001-76

NCL 430300000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 98-86-2D, Acetophenone, derivs. 7429-90-5, Aluminum, uses 7647-01-0, Hydrochloric acid, uses 7697-37-2, Nitric acid, uses 17025-47-7 32760-75-1 59183-95-8 59626-33-4 59688-18-5 80279-54-5 85095-67-6 97802-70-5 97802-84-1 123368-77-4 123735-16-0 124197-91-7 124197-93-9 134609-26-0, (η6-Anthracene)[η5-cyclopentadienyl)iron(II) hexafluorophosphate 163342-70-9 **222190-06-9** 263339-82-8 299445-94-6 299446-72-3 330644-77-4 353498-44-9 415683-95-3 496871-55-7 640724-87-4 683228-35-5 683228-39-9 683228-43-5 683228-44-6 735316-60-6 757219-28-6 787551-22-8
RL: TEM (Technical or engineered material use); USES (Uses)
(producing method of photosensitive planog. printing plate)

L28 ANSWER 3 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

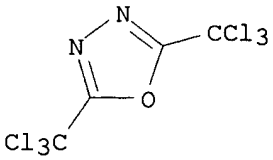
2004:876794 Document No. 141:358120 Presensitized lithographic plates with high sensitivity for low-power laser direct platemaking. Koizumi, Shigeo; Okamoto, Yasuo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004294510 A2 20041021, 79 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-83139 20030325.

AB The plates have undercoating layers containing chelating compds. capable of forming complexes with metals, and photosensitive polymerizable layers containing halo-containing photopolymn. catalysts in this order on Al substrates.
The plates preferably have O-barrier protective layers on the photosensitive layers. The plates give images without background fog.

IT **1202-16-0**
RL: CAT (Catalyst use); USES (Uses)
(presensitized lithog. plates with high sensitivity for low-power laser direct platemaking)

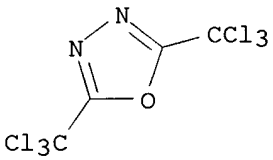
RN 1202-16-0 HCAPLUS

CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM G03F007-11
ICS G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT **1202-16-0** 24504-22-1 97802-84-1 125407-19-4 191726-69-9 441793-43-7 777067-79-5
RL: CAT (Catalyst use); USES (Uses)
(presensitized lithog. plates with high sensitivity for low-power laser direct platemaking)

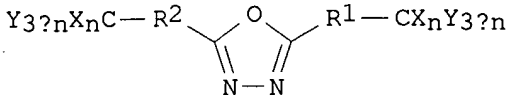
L28 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
2004:876793 Document No. 141:372802 Presensitized lithographic plates with high sensitivity for low-power laser direct platemaking. Koizumi, Shigeo; Okamoto, Yasuo (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004294509 A2 20041021, 78 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 2003-83138 20030325.
AB The plates have photosensitive layers comprising photopolymerizable compns. containing halo-containing photopolymn. catalysts and chelating compds. capable of forming complexes with metals on Al substrates. The plates preferably have O-barrier protective layers on the photosensitive layers. The plates give images without background fog.
IT **1202-16-0**
RL: CAT (Catalyst use); USES (Uses)
(presensitized lithog. plates with high sensitivity for low-power laser direct platemaking)
RN 1202-16-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



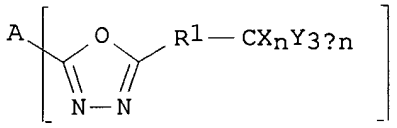
IC ICM G03F007-004
ICS B41N001-14; G03F007-00; G03F007-029; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT **1202-16-0** 24504-22-1 97802-84-1 125407-19-4 191726-69-9 441793-43-7 777067-79-5
RL: CAT (Catalyst use); USES (Uses)
(presensitized lithog. plates with high sensitivity for low-power laser direct platemaking)

L28 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
2004:650953 Document No. 141:182006 Light sensitive composition and light sensitive planographic printing plate material. Ohta, Tomohisa; Kuroki, Takaaki (Konica Minolta Holdings, Inc., Japan). Eur. Pat. Appl. EP 1445653 A1 20040811, 44 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2004-2278 20040203. PRIORITY: JP 2003-30685 20030207; JP 2003-371878 20031031.

GI



I

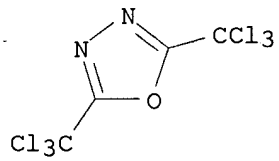


II

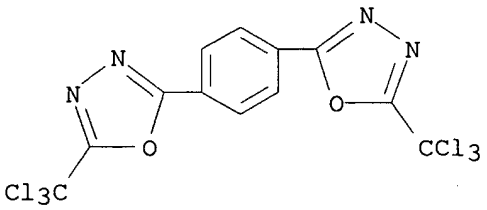
AB Disclosed are a light sensitive composition comprising an addition polymerizable ethylenically unsatd. monomer, a photopolymn. initiator and a polymer binder, and a light sensitive planog. printing plate material comprising a hydrophilic support, and provided thereon, the light sensitive composition, wherein the photopolymn. initiator is a trihalomethyl group-containing oxadiazole compound represented by I , II (R1 = chemical bond, alkylene group, alkyleneoxy group, ether group, carbonyl group, ester group, carbonylamino group, sulfonyl amino group; X= Cl, Br; Y = H, C1-8 alkyl; n = 2,3; m = integer not less than 2; A = m-valent organic group).

IT **1202-16-0 222190-06-9 736156-32-4 736156-33-5 736156-34-6 736156-35-7**
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; Light sensitive composition for light sensitive planog. printing plate containing)

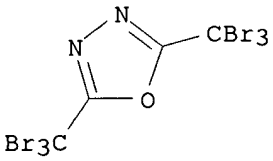
RN 1202-16-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



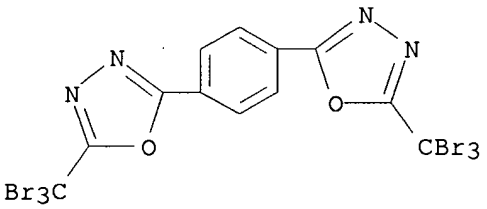
RN 222190-06-9 HCAPLUS
CN 1,3,4-Oxadiazole, 2,2'-(1,4-phenylene)bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)



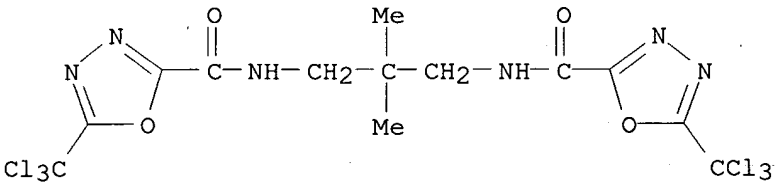
RN 736156-32-4 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(tribromomethyl)- (9CI) (CA INDEX NAME)



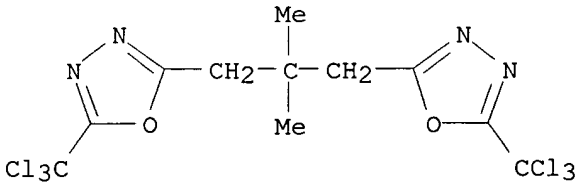
RN 736156-33-5 HCAPLUS
CN 1,3,4-Oxadiazole, 2,2'-(1,4-phenylene)bis[5-(tribromomethyl)- (9CI) (CA INDEX NAME)



RN 736156-34-6 HCAPLUS
CN 1,3,4-Oxadiazole-2-carboxamide, N,N'-(2,2-dimethyl-1,3-propanediyl)bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)

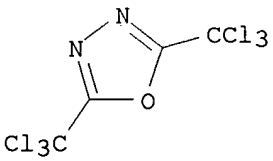


RN 736156-35-7 HCAPLUS
CN 1,3,4-Oxadiazole, 2,2'-(2,2-dimethyl-1,3-propanediyl)bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)



IC ICM G03F007-029
ICS B41C001-10
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
IT **1202-16-0** 32760-80-8 93709-39-8 125051-32-3 219125-19-6
222190-06-9 736156-32-4 736156-33-5
736156-34-6 736156-35-7
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; Light sensitive composition for light sensitive planog. printing plate containing)

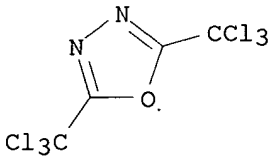
L28 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:711202 Document No. 137:270544 Photopolymerizable lithographic printing plate containing polyurethane binder and a halogen-containing photopolymerization initiator. Oshima, Yasuhito (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002268220 A2 20020918, 115 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-63779 20010307.
AB The photopolymerizable lithog. printing plate comprises a polyurethane binder insol. in water and soluble in an alkaline aqueous solution and a halogen-containing photopolymn. initiator on an Al support. The use of the polyurethane binder suppressed the reaction of the halogen-containing photopolymn. initiator with a minute amount of metal elements in the Al support, thereby preventing the metal fogging while maintaining the high sensitivity and storage stability.
IT **1202-16-0**
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; photopolymerizable lithog. printing plate containing polyurethane binder and halogen-containing photopolymn. initiator)
RN 1202-16-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM G03F007-035
ICS B41N001-14; G03F007-00; G03F007-029
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38

IT **1202-16-0** 6542-67-2 24504-22-1 97802-84-1 125051-32-3
191726-69-9 441793-43-7 441793-45-9 442199-78-2 442200-02-4
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; photopolymerizable lithog. printing plate containing polyurethane binder and halogen-containing photopolymn. initiator)

L28 ANSWER 7 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:592338 Document No. 137:161398 Photopolymerizable lithographic plate employing halogen-containing photopolymerization initiator. Oshima, Yasuhito; Kunita, Kazuto (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002221798 A2 20020809, 74 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-16092 20010124.
AB The lithog. plates comprises, on an Al support having an anodic oxide film, an interlayer containing a complexing agent capable of forming a complex with a metal, and a photopolymerizable layer containing the halogen-containing polymerization initiator. The complex-forming compound forms a complex with impurities (e.g., Fe, Mn, Cu, Cr, Zn, Ni, etc.) included in the Al support, so that the plate inhibits undesired reaction between the impurities and the polymerization initiator and shows excellent storage stability.
IT **1202-16-0**
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(polymerization initiator; photopolymerizable lithog. plate having photopolymerizable layer containing halogen-containing polymerization initiator)
RN 1202-16-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM G03F007-11
ICS G03F007-00; G03F007-029
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT **1202-16-0** 6542-67-2 24504-22-1 97802-84-1 125051-32-3
191726-69-9 442199-78-2 442200-02-4
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(polymerization initiator; photopolymerizable lithog. plate having photopolymerizable layer containing halogen-containing polymerization initiator)

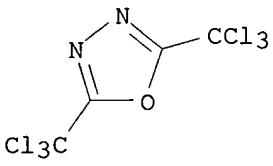
L28 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:538444 Document No. 137:101453 Manufacture of lithographic printing plates from presensitized plates having halogen-containing photoinitiators. Kunita, Kazuto; Nagase, Hiroyuki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002202615 A2 20020719, 91 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-401890 20001228.

AB The method uses developing agents with pH ≤13.0. The method may contain exposure with laser beams at 300-450 or 800-1200 nm.

IT **1202-16-0**
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; alkali-development of laser-exposed presensitized lithog. plates having halogen-containing photoinitiators)

RN 1202-16-0 HCAPLUS

CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM G03F007-32
ICS B41C001-055; B41N001-14; G03F007-00; G03F007-029

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **1202-16-0** 6542-67-2 24504-22-1 97802-84-1 180258-30-4 191726-69-9 441793-43-7 441793-45-9 442199-78-2 442200-02-4
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; alkali-development of laser-exposed presensitized lithog. plates having halogen-containing photoinitiators)

L28 ANSWER 9 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

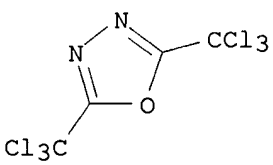
2002:538435 Document No. 137:116970 Presensitized lithographic printing plates with good storage stability and scratch resistance having halogen-containing photoinitiators. Kunita, Kazuto (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002202596 A2 20020719, 74 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-401468 20001228.

AB The presensitized plate has (A) a photosensitive layer comprising halogen-containing photoinitiators and ≥30% radically polymerized monomers and (B) an O-impermeable protective top layer containing ≥2 types of water-soluble polymers. Good compatibility of the initiators in the photosensitive layers and adhesion of the protective layers are achieved with this invention.

IT **1202-16-0**
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; presensitized neg. lithog. printing plates with good compatibility of halogen-containing photoinitiators)

RN 1202-16-0 HCAPLUS

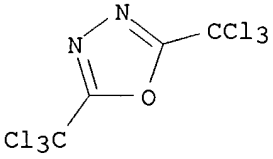
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM G03F007-029

ICS G03F007-00; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT **1202-16-0** 6542-67-2 24504-22-1 97802-84-1 180258-30-4 191726-69-9 441793-43-7 442199-78-2 442200-02-4
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; presensitized neg. lithog. printing plates with good compatibility of halogen-containing photoinitiators)

L28 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:538434 Document No. 137:101451 Photopolymerizable lithographic plate manufactured by using plural solvents. Kunita, Kazuto (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002202595 A2 20020719, 74 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-401467 20001228.
AB The plate is manufactured by coating a photopolymn. composition containing a halo-containing photopolymn. initiator and dissolved in ≥3 kinds of solvents, and dried at 120-170°. Fog generation on coating and drying is prevented, and the plate shows high sensitivity, storage stability, and good handling under room light.
IT **1202-16-0**
RL: CAT (Catalyst use); USES (Uses)
(photopolymerizable lithog. plate containing halo compound photopolymn. initiator)
RN 1202-16-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM G03F007-029
ICS G03F007-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
IT **1202-16-0** 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine 24504-22-1 97802-84-1 180258-30-4 191726-69-9 441793-43-7 441793-45-9 442199-78-2 442200-02-4
RL: CAT (Catalyst use); USES (Uses)
(photopolymerizable lithog. plate containing halo compound photopolymn. initiator)

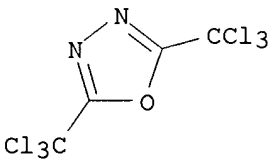
L28 ANSWER 11 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:538433 Document No. 137:101450 Photopolymerizable lithographic plate containing triarylmethane heat polymerization inhibitor. Kunita, Kazuto (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002202594 A2 20020719, 87 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-402570 20001228.
AB The plate comprises a support coated with a photopolymerizable composition containing halo-containing polymerization initiator and triarylmethane compound heat

polymerization inhibitor, and drying at 120-170°. Fog generation is prevented even when heated at higher temperature, and the plate shows high sensitivity, good handling under roomlight, and storage stability.

IT **1202-16-0**
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. lithog. plate containing halo-containing photopolymn. initiator
and triarylmethane heat polymerization inhibitor)

RN 1202-16-0 HCAPLUS

CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM G03F007-028
ICS G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37

IT **1202-16-0** 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine 24504-22-1 97802-84-1 180258-30-4 191726-69-9 441793-43-7 441793-45-9 442199-78-2 442200-02-4
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. lithog. plate containing halo-containing photopolymn. initiator
and triarylmethane heat polymerization inhibitor)

L28 ANSWER 12 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:522568 Document No. 135:257541 Synthesis and optical and electrochemical properties of novel polyethers containing isolated distyrylbenzene derivatives and side-aromatic 1,3,4-oxadiazole chromophores. Chen, Yun; Lai, Shiao-Ping (Department of Chemical Engineering, National Cheng Kung University, Tainan, 701, Taiwan). Journal of Polymer Science, Part A: Polymer Chemistry, 39(15), 2571-2580 (English) 2001. CODEN: JPACEC. ISSN: 0887-624X. Publisher: John Wiley & Sons, Inc..

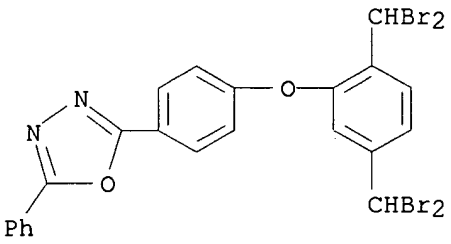
AB Polyethers with isolated emitting distyrylbenzene derivs. and pendant aromatic 1,3,4-oxadiazole chromophores were prepared by the Horner-Wadsworth-Emmons olefination reaction. Polyethers without oxadiazole groups were also synthesized for comparison. The reduced viscosity of the polyethers was 0.20 - 0.33 dL/g, and the solubility in organic solvents increased with a number of side methoxy or ethoxy substituents in distyrylbenzene. Absorption spectra showed two peaks at 371-388 and 304 nm that corresponded to the π-π^* transition of the conjugated distyrylbenzene derivs. and aromatic oxadiazoles, resp. The band gap is found at 2.76 - 2.85 eV, was calculated from the onset of absorption of films. The photoluminescence (PL) maxima is found at 459-469 nm, indicating that the polyethers are blue-emitting materials, and the relative PL quantum efficiency is 0.62-0.77 and 0.23-0.40 in solution and film, resp. Cyclic voltammetry data indicate that oxadiazole moieties lowered the barrier of electron injection but also retard hole injection.

IT **360784-81-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation and optical absorption and redox potential of conjugated polyethers containing distyrylbenzene and side oxadiazole chromophores)

RN 360784-81-2 HCAPLUS

CN 1,3,4-Oxadiazole, 2-[4-[2,5-bis(dibromomethyl)phenoxy]phenyl]-5-phenyl- (9CI) (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 72, 73

IT 360784-77-6P 360784-78-7P 360784-79-8P 360784-80-1P
360784-81-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation and optical absorption and redox potential of conjugated polyethers containing distyrylbenzene and side oxadiazole chromophores)

L28 ANSWER 13 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

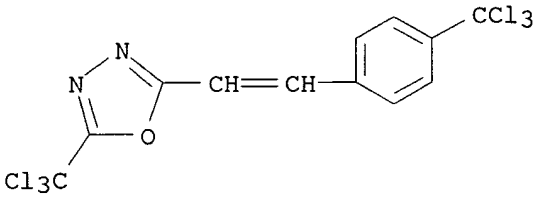
1999:327010 Document No. 131:11554 I-line photoresist composition, image formation, formation of circuit board, and article using the composition. Shelnut, James G. (Shipley Company L.L.C., USA). Jpn. Kokai Tokkyo Koho JP 11133608 A2 19990521 Heisei, 42 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-207025 19980618. PRIORITY: US 1997-878398 19970618.

AB The title i-line neg. photoimageable composition which is photoimageable at a wavelength of about 320 to 420 nm comprises a photoacid generator of a substituted triazine compound or substituted oxadiazol compound, a reactive oligomer having ≥1 crosslinking group, and a binder resin. The composition may comprise the photoacid generator, a polybutadiene comprising ≥1 internal epoxide group, a photosensitizer, a crosslinking agent, and a resin binder. Processes for forming an imaged coating layer made from the compn and for the formation of a circuit board using the composition and an article of manufacture comprising a substrate having a photoimaged composition made from the composition on the surface are also claimed. The photoresist composition useful in constructing printed circuits and integrated circuit packages can reduce line growth of the resist image and shows good storage stability.

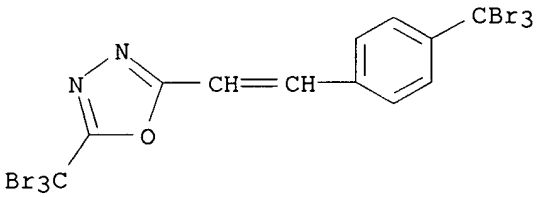
IT **225781-13-5 225781-14-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(acid generator; i-line sensitive resist composition containing photoacid generator, reactive oligomer, and binder)

RN 225781-13-5 HCAPLUS

CN 1,3,4-Oxadiazole, 2-(trichloromethyl)-5-[2-[4-(trichloromethyl)phenyl]ethenyl]- (9CI) (CA INDEX NAME)

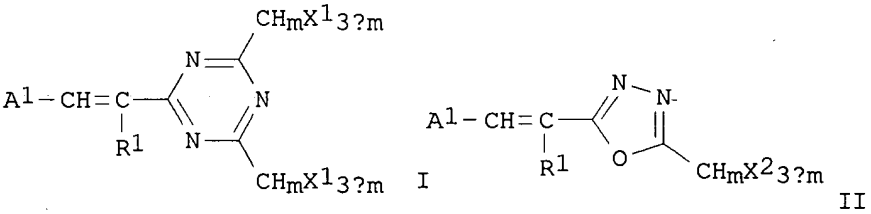


RN 225781-14-6 HCAPLUS
CN 1,3,4-Oxadiazole, 2-(tribromomethyl)-5-[2-[4-(tribromomethyl)phenyl]etheny
l]- (9CI) (CA INDEX NAME)



IC ICM G03F007-038
ICS G03F007-004; H01L021-027; H05K003-06
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 76
IT 69432-40-2, Triazine B **225781-13-5 225781-14-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(acid generator; i-line sensitive resist composition containing photoacid generator, reactive oligomer, and binder)

L28 ANSWER 14 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1999:209946 Document No. 130:274142 Photosensitive composition and presensitized lithographic plate using same. Sasaki, Mitsuru (Mitsubishi Chemical Industries Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11084649 A2 19990326 Heisei, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-236946 19970902.
GI

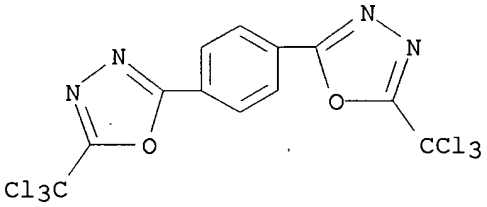


AB The title composition contains (a) ≥1 selected from novolak and poly(vinylphenol) resins, (b) a crosslinking agent for the resin, (c) a near IR absorbent, (d) 2,4,6-tris(trichloromethyl)-s-triazine, and (e) ≥1 compound selected from s-triazine compds. I and 1,3,4-oxadiazole compds. II [A1, A2 = (substituted) aromatic hydrocarbon or heterocycle; R1,

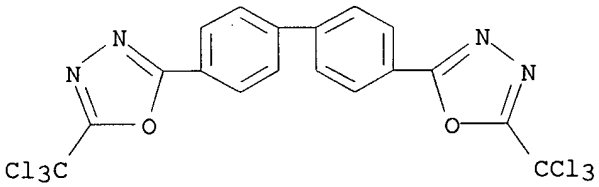
R2 = H, halo, alkyl, aryl; X1, X2 = halo; n = 0-3; m= 0-2]. A presensitized lithog. plate is also claimed, comprising a support coated with a photosensitive layer made of the composition The lithog. plate shows high sensitivity in near IR regions and stability in post baking treatment.

IT **222190-06-9 222190-07-0 222190-08-1**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(photoacid generator; presensitized lithog. plate containing resin, crosslinking agent, IR absorbent, triazine derivative and/or oxadiazole compound)

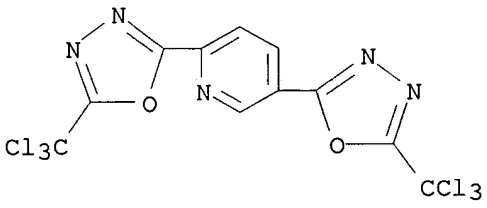
RN 222190-06-9 HCAPLUS
CN 1,3,4-Oxadiazole, 2,2'-(1,4-phenylene)bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)



RN 222190-07-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,2'-[1,1'-biphenyl]-4,4'-diylbis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)



RN 222190-08-1 HCAPLUS
CN Pyridine, 2,5-bis[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]- (9CI) (CA INDEX NAME)



IC ICM G03F007-032
ICS C08K005-3445; C08K005-3492; C08L025-00; C08L061-06; G03F007-00; G03F007-004; G03F007-028

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

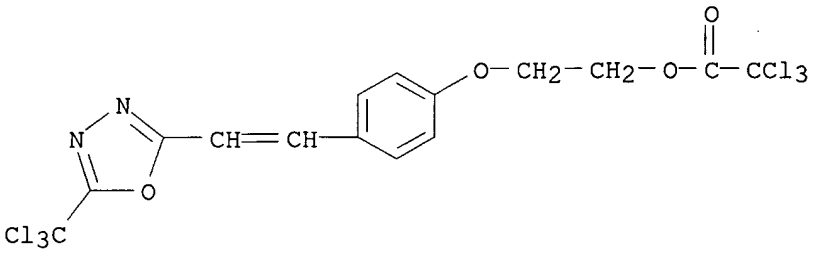
IT 6542-67-2, 2,4,6-Tris(trichloromethyl)-s-triazine 42573-57-9

69432-40-2 93641-24-8 139545-38-3 151052-44-7 154880-05-4
167996-74-9 167996-75-0 **222190-06-9 222190-07-0**
222190-08-1
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(photoacid generator; presensitized lithog. plate containing resin, crosslinking agent, IR absorbent, triazine derivative and/or oxadiazole compound)

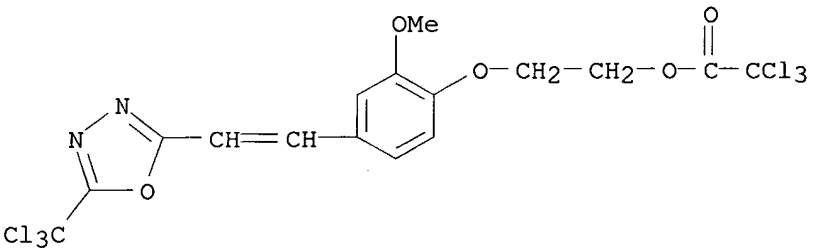
L28 ANSWER 15 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:71381 Document No. 128:174182 Photosensitive transfer sheet useful in production of color proof. Yumoto, Masatoshi; Yagihara, Naoto; Fujimori, Junichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10020495 A2 19980123 Heisei, 28 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-178368 19960708.
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title sheet comprises a support coated with an organic polymer-based releasing layer and then with a photopolymg. photosensitive resin layer containing, as a photopolymn. initiator, ≥1 compound selected from I-IV [R1 = CnH2nR10, CmH2mCO2R11 (R10 = OH, OR12, OCOR12, OSO2R12, halo; n = 2-12; R11 = C1-12 alkyl, C1-10 substituent-substituted alkoxy, C6-18 aryloxy, C2-10 acyloxy, C6-18 aryl, OH or halo-substituted C1-12 alkyl, monovalent metal atom; m = 1-12; R12 = C1-12 alkyl, C1-10 substituent-substituted alkoxy, C6-18 aryloxy, C2-10 acyloxy, C6-18 aryl or halo-substituted C1-12 alkyl, Ph, C1-12 substituent-substituted alkyl, C1-12 alkoxy, C6-18 aryloxy, C7-19 aralkyl, OH or halo-substituted Ph); R2, R3, R6, R7 = H, C1-10 alkyl, C1-10 alkoxy, C2-10 acyloxy, halo; R4, R5, R8, R9 = H, C1-10 alkyl, Ph, C1-10 substituent-substituted alkyl, C1-10 alkoxy, halo-substituted Ph; X, Y, Z = H or halo, X ≠ Y ≠ Z ≠ H]. When image transfer is carried out using the sheet, the yellow stain of the nonimage area is prevented and high quality color proofs are obtained therefrom. Thus, a PET film was coated with a releasing layer containing a polyamide resin and poly(hydroxystyrene) and a photosensitive resin layer containing benzyl methacrylate-methacrylic copolymer, pentaerythritol tetraacrylate, V, and a pigment to give a transfer sheet.
IT **179949-12-3 202863-35-2**
RL: CAT (Catalyst use); USES (Uses)
(photosensitive transfer image-forming sheet containing methyloxazole derivative photopolymn. initiator)
RN 179949-12-3 HCAPLUS
CN Acetic acid, trichloro-, 2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl ester (9CI) (CA INDEX NAME)



RN 202863-35-2 HCAPLUS
CN Acetic acid, trichloro-, 2-[2-methoxy-4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl ester (9CI) (CA INDEX NAME)



IC ICM G03F007-029
ICS G03F003-10; G03F007-004; G03F007-027; G03F007-11; G03F007-34
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 176641-97-7 176642-10-7 179949-10-1 179949-11-2 **179949-12-3**
179949-13-4 179949-14-5 179949-15-6 179949-16-7 191334-95-9
191334-96-0 191334-97-1 202862-84-8 202862-85-9 202862-86-0
202862-87-1 202862-88-2 202862-89-3 202862-90-6 202862-91-7
202862-92-8 202862-93-9 202862-94-0 202862-95-1 202862-96-2
202862-97-3 202862-98-4 202862-99-5 202863-00-1 202863-01-2
202863-02-3 202863-03-4 202863-04-5 202863-05-6 202863-06-7
202863-07-8 202863-08-9 202863-09-0 202863-10-3 202863-11-4
202863-12-5 202863-13-6 202863-14-7 202863-15-8 202863-16-9
202863-17-0 202863-18-1 202863-19-2 202863-20-5 202863-21-6
202863-22-7 202863-23-8 202863-24-9 202863-25-0 202863-26-1
202863-27-2 202863-28-3 202863-29-4 202863-30-7 202863-31-8
202863-32-9 202863-33-0 202863-34-1 **202863-35-2**
RL: CAT (Catalyst use); USES (Uses)
(photosensitive transfer image-forming sheet containing methyloxazole derivative photopolymn. initiator)

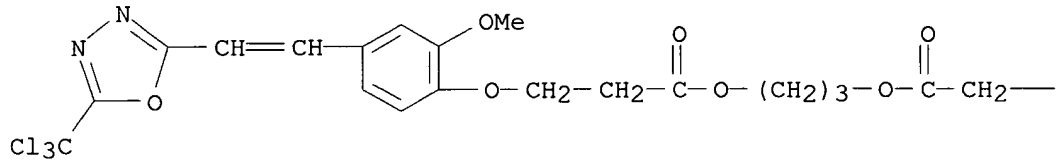
L28 ANSWER 16 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1997:449528 Document No. 127:66307 Manufacture of esters and salts of carboxylic acids bearing 2-trihalomethyl-1,3,4-oxadiazol-5-yl groups. Yumoto, Masatoshi; Yanagihara, Naoto (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09124624 A2 19970513 Heisei, 21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-285507 19951102.
AB The title salts useful as initiators for photochem. polymerization are obtained from the base-catalyzed hydrolysis of esters R1OCO(L)mZ(R2C:CR3)nY [R1 = C1-12 alkyl; R2,3 = H, C1-10 alkyl or C6-12 aryl; Z = phenylene group optionally substituted with halogen, C1-10 alkyl(oxy) or C2-10 acyloxy

group; L = C1-12 alkylene (oxy), phenylene(oxy) group; Y = 2-trihalomethyl-1,3,4-oxadiazol-5-yl group; n = 0, 1; m = 0, 1]. For example, hydrolyzing 2-trichloromethyl-5-(3-methoxy-4-methoxycarbonylmethoxystyryl)-1,3,4-oxadiazole with NaOH at 7° in EtOH gave 2-methoxy-4-[2-(2-trichloromethyl-1,3,4-oxadiazol-5-yl)ethenyl]phenoxyacetic acid Na-salt.

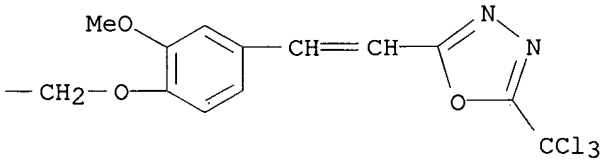
IT **191334-98-2P 191334-99-3P 191335-00-9P 191335-01-0P**
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(manufacture of photoinitiator for polymerization)

RN 191334-98-2 HCAPLUS
CN Propanoic acid, 3-[2-methoxy-4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, 1,3-propanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

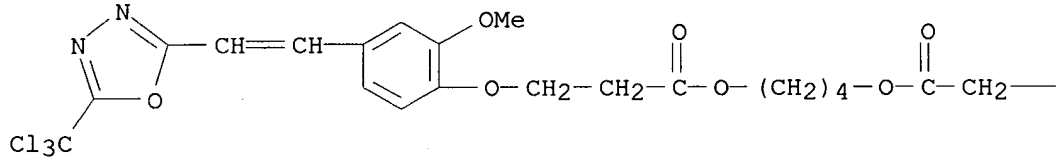


PAGE 1-B

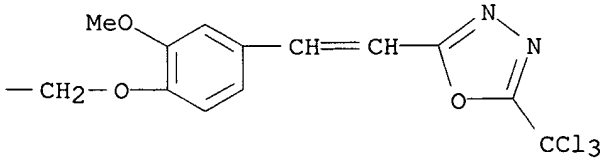


RN 191334-99-3 HCAPLUS
CN Propanoic acid, 3-[2-methoxy-4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, 1,4-butanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

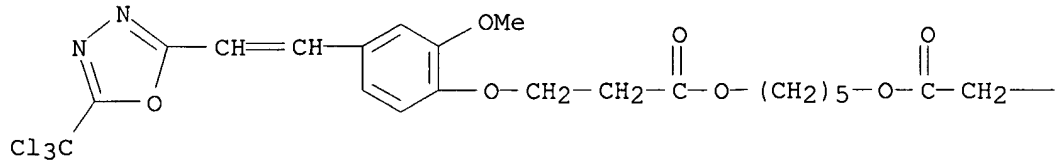


PAGE 1-B

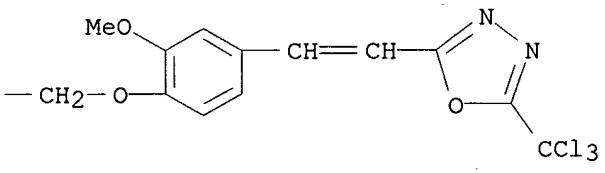


RN 191335-00-9 HCAPLUS
CN Propanoic acid, 3-[2-methoxy-4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, 1,5-pentanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

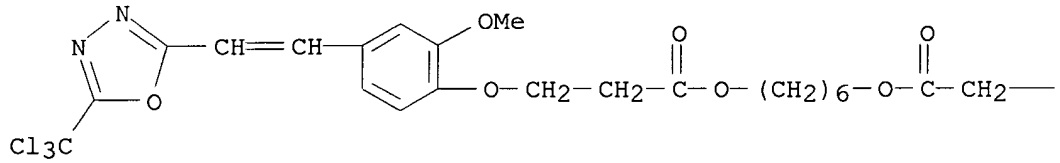


PAGE 1-B

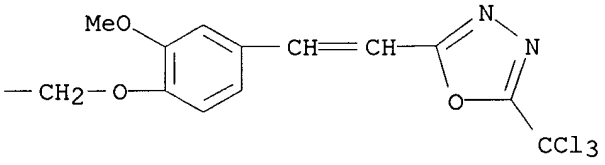


RN 191335-01-0 HCAPLUS
CN Propanoic acid, 3-[2-methoxy-4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, 1,6-hexanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C07D271-10
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 67
IT 179949-15-6P 179949-16-7P 191334-94-8P 191334-95-9P 191334-96-0P
191334-97-1P **191334-98-2P 191334-99-3P**
191335-00-9P 191335-01-0P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(manufacture of photoinitiator for polymerization)

L28 ANSWER 17 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

1997:61150 Document No. 126:82291 photosensitive transfer printing sheet on temporary support comprising syndiotactic styrene polymer or its composition. Hashimoto, Narikazu (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08292575 A2 19961105 Heisei, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-98439 19950424.

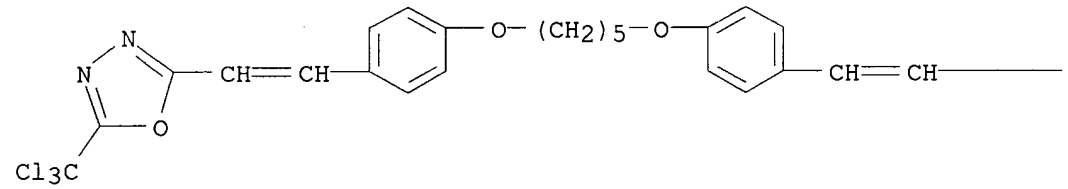
AB The sheet comprises a temporary support comprising a syndiotactic styrene polymer or its composition and at least a transferable photosensitive layer, which is used for printing by (1) forming an image on the photosensitive layer, (2) adhering the photosensitive layer and an intrinsic support, and (3) removing the temporary support. Heat for melting of the temporary support may be 15-40 J/g and the content of styrene in the support may be 70-99 weight%. The photosensitive layer may contain bis(halo-substituted methyloxadiazole) as polymerization initiator. The sheet is useful for colorproofs or display device showing prevention of shear in color printing, i.e., dimensional stability in the temporary support.

IT **176642-07-2**
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; in temporary support containing syndiotactic styrene polymer with dimensional stability for photosensitive transfer printing sheet)

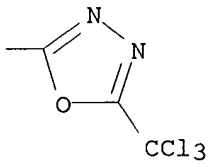
RN 176642-07-2 HCAPLUS

CN 1,3,4-Oxadiazole, 2,2'-[1,5-pentanediylbis(oxy-4,1-phenylene-2,1-ethenediyl)]bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03F007-09
ICS G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

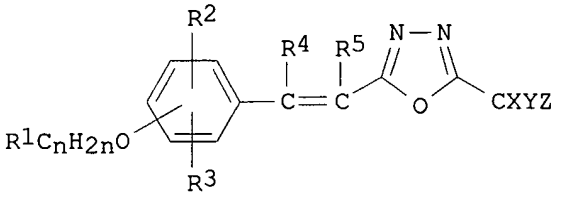
IT **176642-07-2**
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; in temporary support containing syndiotactic styrene polymer with dimensional stability for photosensitive transfer printing sheet)

L28 ANSWER 18 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

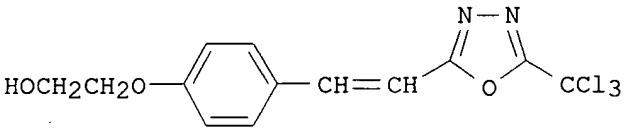
1996:497142 Document No. 125:142742 Preparation of oxadiazoles as

intermediates for photosensitive compounds. Yumoto, Masatoshi; Yanagihara, Naoto (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08127572 A2 19960521 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-40262 19950228. PRIORITY: JP 1994-212793 19940906.

GI



I



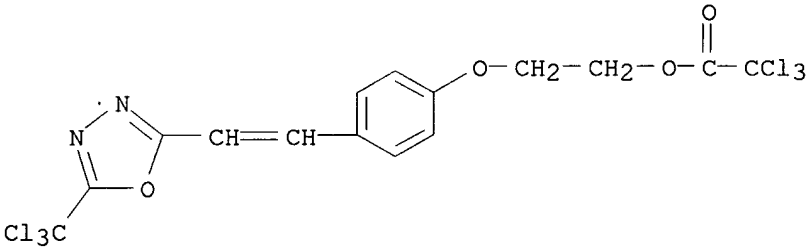
II

AB The title compds. I [R1 = OH, etc.; R2, R3 = H, alkyl, etc.; R4, R5 = H, etc.; X, Y, Z = H, halo; n = 1 - 10] are prepared The title compound II was prepared

IT **179949-12-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of oxadiazoles as intermediates for photosensitive compds.)

RN 179949-12-3 HCAPLUS

CN Acetic acid, trichloro-, 2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl ester (9CI) (CA INDEX NAME)



IC ICM C07D271-10
ICS G03F007-029

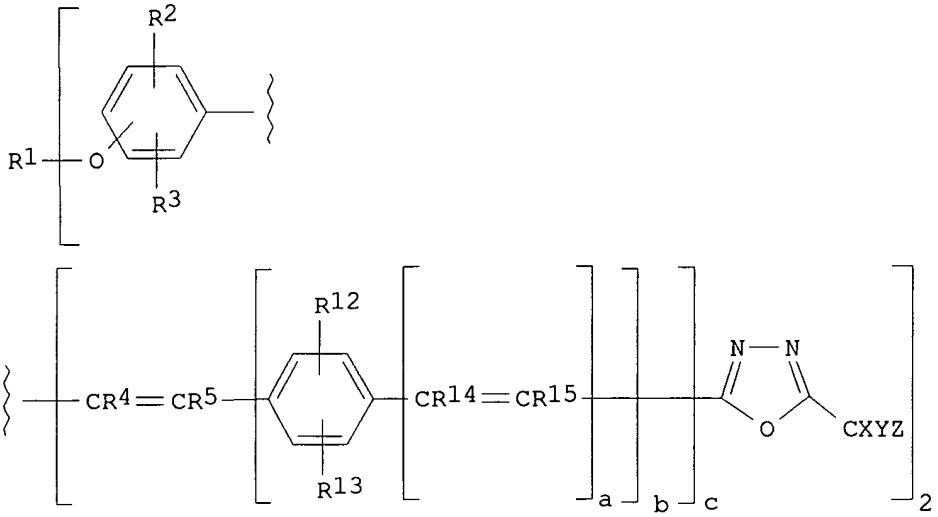
CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 74

IT 176641-97-7P 176642-09-4P 176642-10-7P 176642-14-1P 179949-10-1P
179949-11-2P **179949-12-3P** 179949-13-4P 179949-14-5P
179949-15-6P 179949-16-7P 179949-17-8P 179949-18-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of oxadiazoles as intermediates for photosensitive compds.)

L28 ANSWER 19 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:303747 Document No. 124:318154 Photosensitive bis[(halomethyl)oxadiazole] compounds and photosensitive transfer sheets using them. Yumoto, Masatoshi; Yanagihara, Naoto; Iwakura, Ken; Fujimori, Junichi; Fujimoto, Shinji; Maeda, Minoru (Fuji Photo Film Co., Ltd.,

Japan). Eur. Pat. Appl. EP 700909 A1 19960313, 50 pp. DESIGNATED STATES: R: DE, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1995-113922 19950905. PRIORITY: JP 1994-212794 19940906; JP 1994-227984 19940922; JP 1995-38743 19950227; JP 1995-40261 19950228.

GI



I

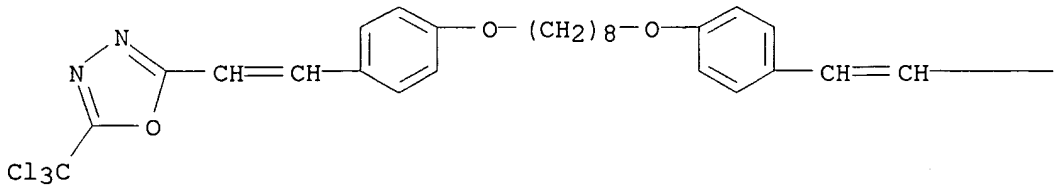
AB The photosensitive bis[(halomethyl)oxadiazole] compds., which are capable of producing free radicals upon exposure to light, have the structure I [R1 = divalent aliphatic group, CnH2nR7CnH2n; R2, R3, R12, R13 = H, C1-10 alkyl, C1-10 alkoxy, C2-10 acyloxy, halogen; R4, R5, R14, R15 = H, C1-10 alkyl, (un)substituted Ph; R7 = NR8, O2CR9CO2, SO2R9SO2, COR9CO, OCpH2pOR10OCpH2pO; R8 = C1-10 alkyl, (un)substituted Ph; R9 = C6H4, NHCH2C6H4CH2NH, CmH2mOR10OCmH2m; R10 = C6H4, C6H4QC6H4; Q = direct link, O, S, SO2, C(CF3)2, CqH2q; X = halogen; Y, Z = H, halogen; a, b, c = 0, 1; m, n = 1-20; p = 2-20; q = 2-10]. The I are useful in the fields of recording materials such as photosensitive protecting films, printing plates, photoresists, proofs, etc. A photosensitive transfer sheet using a photosensitive composition containing I is useful in making a prepress proof for color proofing, a color display, etc.

IT **176641-96-6P 176641-98-8P 176641-99-9P 176642-00-5P 176642-01-6P 176642-02-7P 176642-03-8P 176642-06-1P 176642-07-2P 176642-08-3P 176642-11-8P 176642-12-9P 176642-13-0P**
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(photosensitive bis[(halomethyl)oxadiazole] compds. for photosensitive transfer sheets)

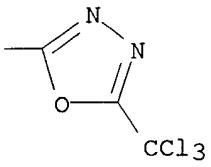
RN 176641-96-6 HCAPLUS

CN 1,3,4-Oxadiazole, 2,2'-[1,8-octanediylbis(oxy-4,1-phenylene-2,1-ethenediyl)]bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

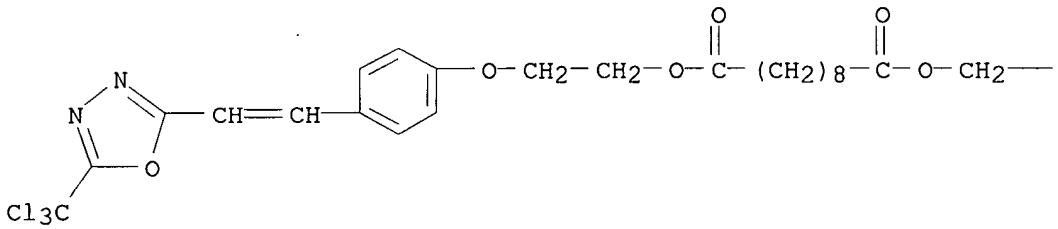


PAGE 1-B



RN 176641-98-8 HCAPLUS
CN Decanedioic acid, bis[2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



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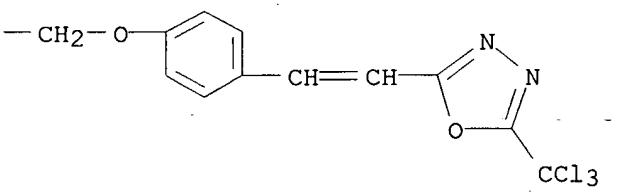
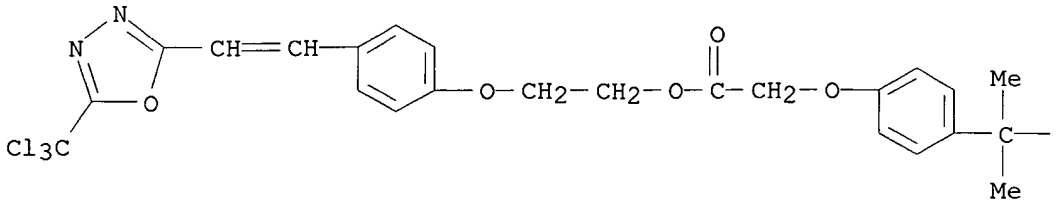
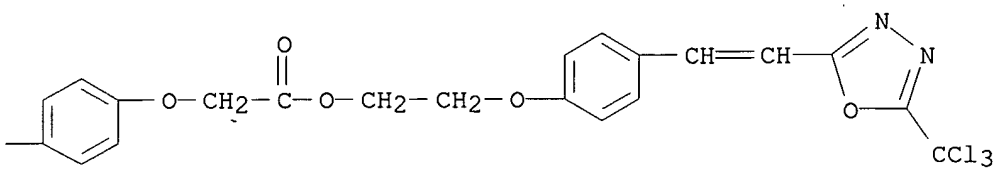


RN 176641-99-9 HCAPLUS
CN Acetic acid, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis-, bis[2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

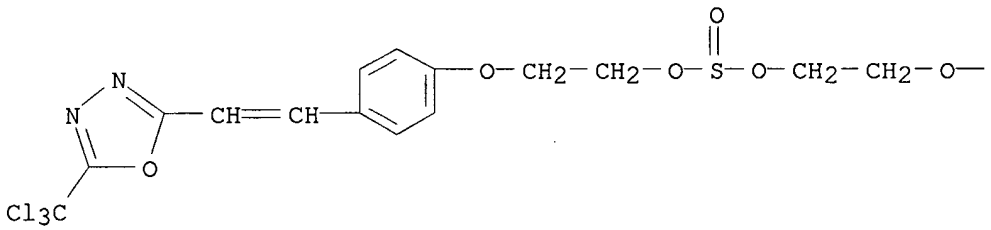


PAGE 1-B

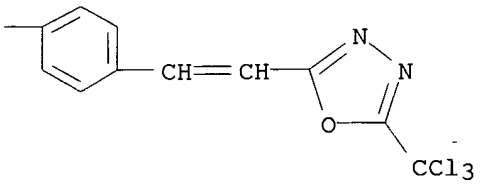


RN 176642-00-5 HCAPLUS
CN Ethanol, 2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, sulfite (2:1) (ester) (9CI) (CA INDEX NAME)

PAGE 1-A

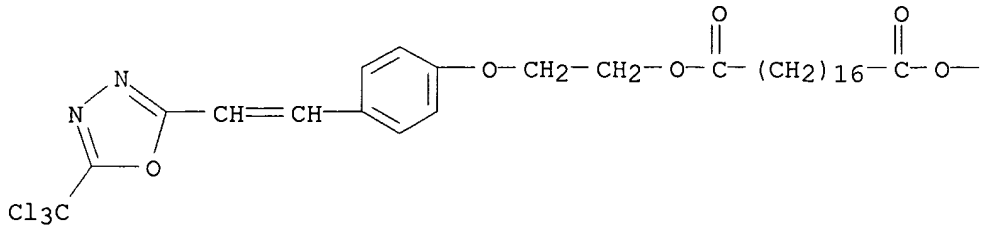


PAGE 1-B

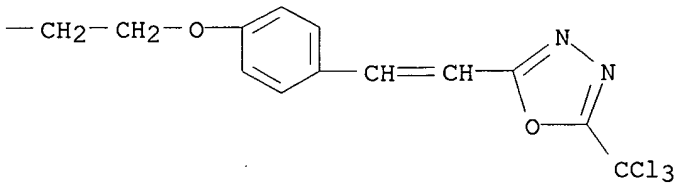


RN 176642-01-6 HCAPLUS
CN Octadecanedioic acid, bis[2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

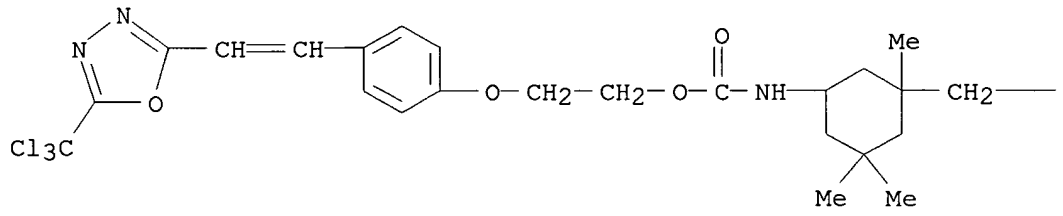


PAGE 1-B

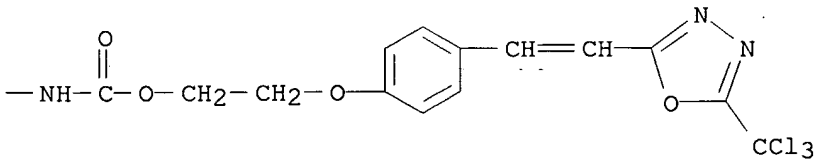


RN 176642-02-7 HCAPLUS
CN Carbamic acid, [[1,3,3-trimethyl-5-[[[2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethoxy]carbonyl]amino]cyclohexyl]methyl]-, 2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

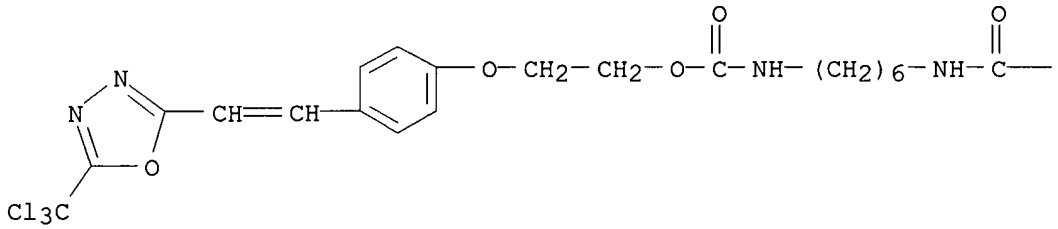


PAGE 1-B

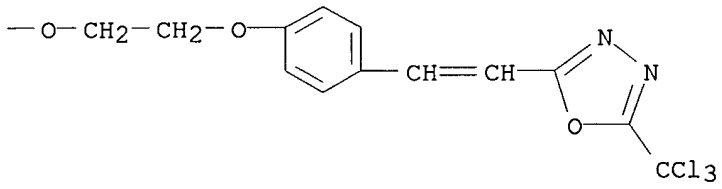


RN 176642-03-8 HCAPLUS
CN Carbamic acid, 1,6-hexanediylbis-, bis[2-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]ethyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

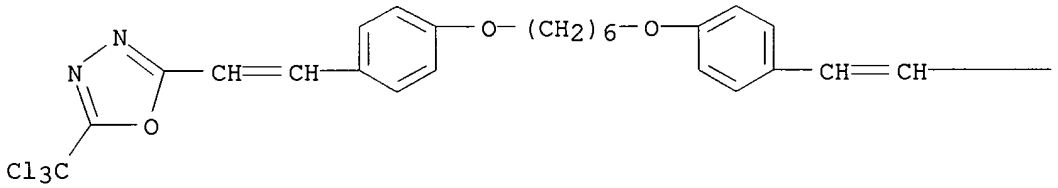


PAGE 1-B

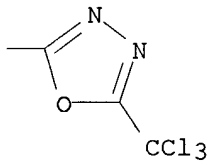


RN 176642-06-1 HCAPLUS
CN 1,3,4-Oxadiazole, 2,2'-[1,6-hexanediylbis(oxy-4,1-phenylene-2,1-ethenediyl)]bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

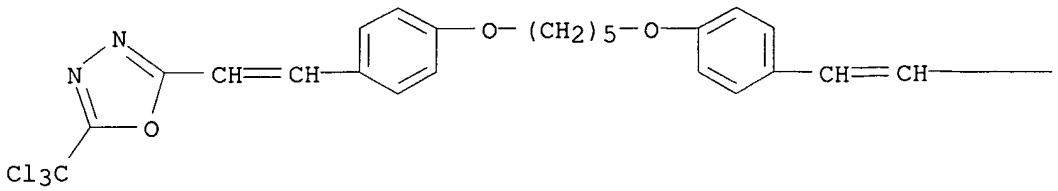


PAGE 1-B

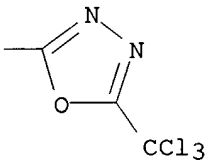


RN 176642-07-2 HCAPLUS
CN 1,3,4-Oxadiazole, 2,2'-[1,5-pentanediylbis(oxy-4,1-phenylene-2,1-ethenediyl)]bis[5-(trichloromethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

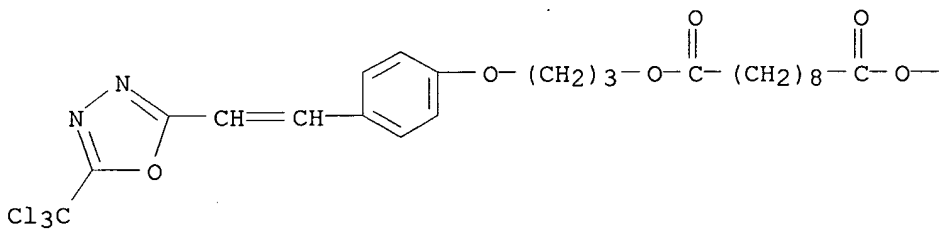


PAGE 1-B

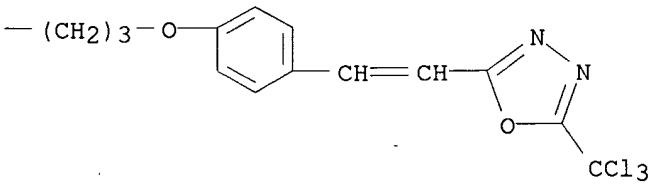


RN 176642-08-3 HCAPLUS
CN Decanedioic acid, bis[3-[4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]propyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A

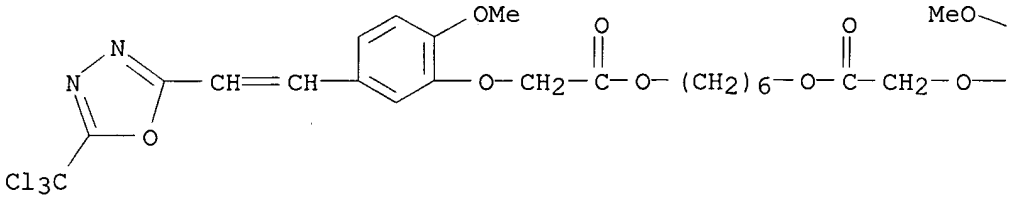


PAGE 1-B

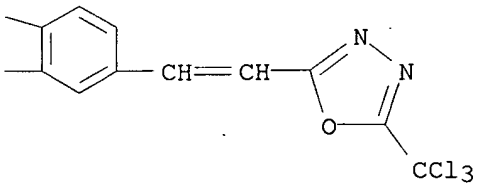


RN 176642-11-8 HCAPLUS
CN Acetic acid, [2-methoxy-5-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, 1,6-hexanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

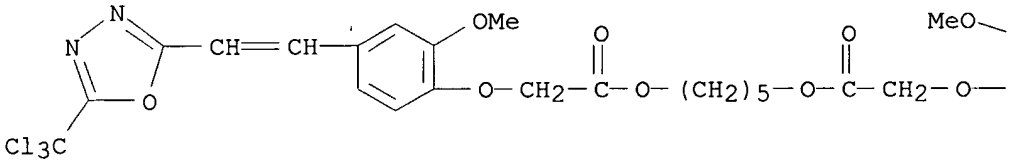


PAGE 1-B

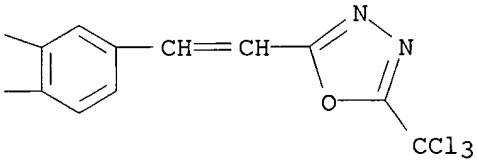


RN 176642-12-9 HCAPLUS
CN Acetic acid, [2-methoxy-4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, 1,5-pentanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

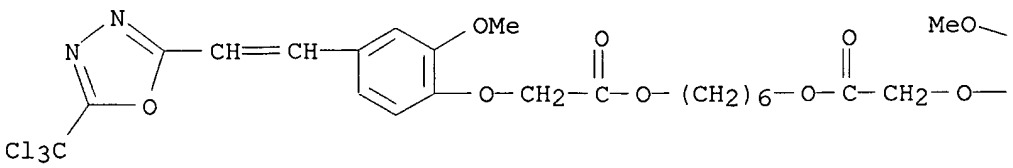


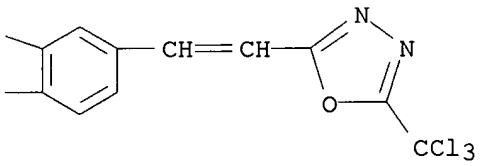
PAGE 1-B



RN 176642-13-0 HCAPLUS
CN Acetic acid, [2-methoxy-4-[2-[5-(trichloromethyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenoxy]-, 1,6-hexanediyl ester (9CI) (CA INDEX NAME)

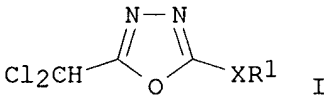
PAGE 1-A



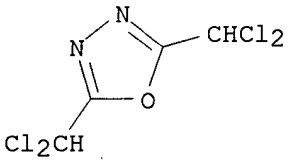


IC ICM C07D271-10
ICS G03F007-031
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 28, 74
IT **176641-96-6P 176641-98-8P 176641-99-9P**
176642-00-5P 176642-01-6P 176642-02-7P
176642-03-8P 176642-06-1P 176642-07-2P
176642-08-3P 176642-11-8P 176642-12-9P
176642-13-0P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(photosensitive bis[(halomethyl)oxadiazole] compds. for photosensitive transfer sheets)

L28 ANSWER 20 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1995:290114 Document No. 122:81377 Nematocidal acaricidal and insecticidal 2-(dichlormethyl)-1,3,4-oxadiazoles. Kraatz, Udo; Kraemer, Wolfgang; Hartwig, Juergen; Erdelen, Christoph (Bayer A.-G., Germany). Ger. Offen. DE 4314037 A1 19941103, 19 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1993-4314037 19930429.
GI

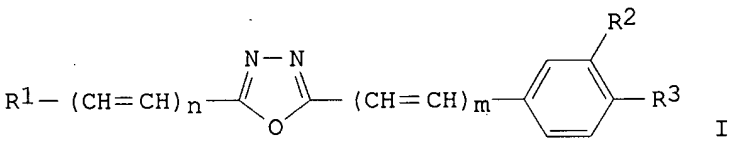


AB The title compds. I (R1 = alkyl, cycloalkyl, etc.; X = oxygen, sulfur, sulfinyl group, etc.) were disclosed as acaricides, insecticides and nematocides. Known compds., such as 2-[5-(dichloromethyl)-1,3,4-oxadiazol-2-yl]phenol and 2-(dichloromethyl)-5-(1H-pyrrol-2-yl)-1,3,4-oxadiazole were claimed for these uses.
IT **16054-40-3P**, 2,5-Bis(dichloromethyl)-1,3,4-Oxadiazole
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of (dichloromethyl)-1,3,4-oxadiazoles acaricides insecticides nematocides)
RN 16054-40-3 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(dichloromethyl)- (8CI, 9CI) (CA INDEX NAME)



IC ICM C07D271-10
ICS C07D271-113; C07D413-04; C07D417-06; A01N043-82; A01N043-84; C07D413-06; C07D413-12; A61K031-41; A61K031-42; A61K031-44; C07C243-38
ICA C07D521-00
ICI C07D271-10, C07D279-12, C07D231-14, C07D233-90, C07D207-26, C07D213-78, C07D261-18
CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 5, 27
IT 288-99-3P, 1,3,4-Oxadiazole **16054-40-3P**, 2,5-Bis(dichloromethyl)-1,3,4-Oxadiazole 95853-54-6P, 1,3,4-Oxadiazole, 2-(dichloromethyl)-5-phenyl- 95853-57-9P, 1,3,4-Oxadiazole, 2-(dichloromethyl)-5-(2,4-dichlorophenyl)- 160152-05-6P, 2-(Dichloromethyl)-5-(3-methylphenyl)-1,3,4-oxadiazole 160152-06-7P, 2-(Dichloromethyl)-5-(4-methylphenyl)-1,3,4-oxadiazole 160152-07-8P, 2-(Dichloromethyl)-5-(3-methoxyphenyl)-1,3,4-oxadiazole 160152-08-9P, 2-(Dichloromethyl)-5-(2-methylphenyl)-1,3,4-oxadiazole 160152-09-0P, 2-(Dichloromethyl)-5-ethyl-1,3,4-Oxadiazole 160152-10-3P, 2-(Dichloromethyl)-5-(3,4-dichlorophenyl)-1,3,4-Oxadiazole 160152-11-4P 160152-12-5P 160152-13-6P 160152-14-7P 160152-15-8P 160152-16-9P 160152-17-0P 160152-18-1P 160152-19-2P 160152-20-5P 160152-21-6P 160152-22-7P 160152-23-8P 160152-24-9P 160152-25-0P 160152-26-1P 160152-27-2P 160152-28-3P
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of (dichloromethyl)-1,3,4-oxadiazoles acaricides insecticides nematocides)

L28 ANSWER 21 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1990:140012 Document No. 112:140012 Oxadiazole photochemical crosslinking catalysts containing 4,6-bis(trichloromethyl)-s-triazin-2-yl groups, their preparation and photosensitive mixtures containing them for offset printing plates. Pawlowski, Georg; Erdmann, Fritz; Lutz, Heidrun (Hoechst A.-G., Fed. Rep. Ger.). Eur. Pat. Appl. EP 332043 A1 19890913, 25 pp. DESIGNATED STATES: R: DE, FR, GB. (German). CODEN: EPXXDW.
APPLICATION: EP 1989-103608 19890302. PRIORITY: DE 1988-3807380 19880307.
GI



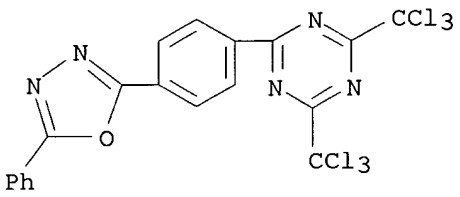
I

AB The oxadiazoles I [R1 = (un)substituted carbocyclic or heterocyclic aromatic residue; R2, R3 = H, 4,6-bis(trichloromethyl)-s-triazin-2-yl (A); m, n = 0, 1], useful as free-radical photochem. polymerization (crosslinking) initiators, are prepared Thus, 5-phenyltetrazole and 4-AC6H4COCl were

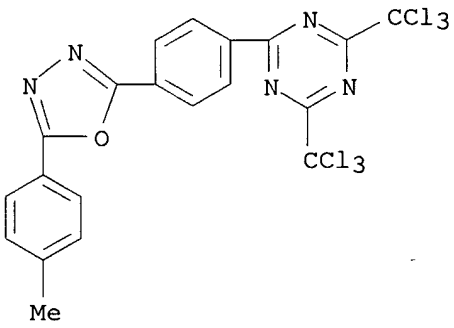
refluxed together to form I (R1 = Ph, R2 = H, R3 = A, m = n = 0), λmax (CH2Cl2) 330 nm, derivs. of which were used in the manufacture of printing plates.

IT **125775-52-2P 125775-58-8P 125775-59-9P**
125775-60-2P 125775-61-3P 125775-62-4P
125775-63-5P 125775-64-6P 125775-65-7P
125775-66-8P 125775-67-9P 125775-68-0P
125775-69-1P 125775-70-4P 125775-71-5P
125775-72-6P 125775-73-7P 125775-74-8P
125775-75-9P 125775-76-0P 125775-77-1P
125775-78-2P 125775-79-3P 125775-80-6P
125775-81-7P 125775-82-8P 125775-83-9P
125775-84-0P 125775-85-1P 125775-86-2P
125775-87-3P 125775-88-4P 125775-89-5P
125775-90-8P 125775-91-9P 125775-92-0P
125775-93-1P 125775-94-2P 125775-95-3P
125775-96-4P 125775-97-5P 125790-08-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, as photochem. free-radical crosslinking initiator)

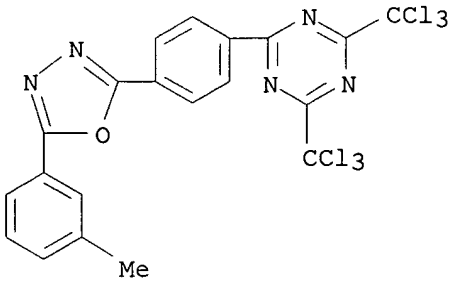
RN 125775-52-2 HCAPLUS
CN 1,3,5-Triazine, 2-[4-(5-phenyl-1,3,4-oxadiazol-2-yl)phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



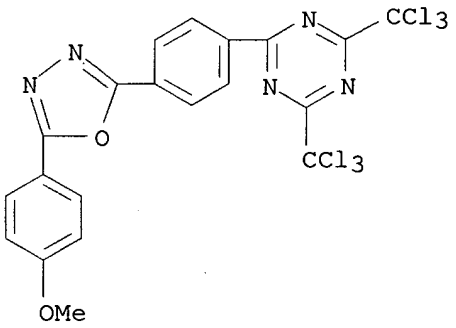
RN 125775-58-8 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(4-methylphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



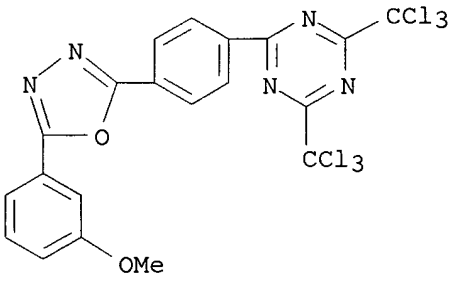
RN 125775-59-9 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(3-methylphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



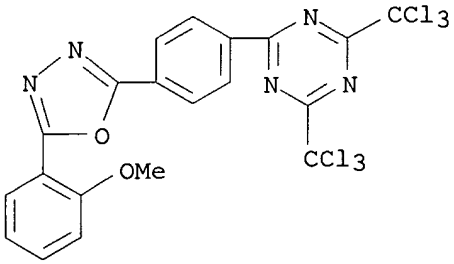
RN 125775-60-2 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(4-methoxyphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



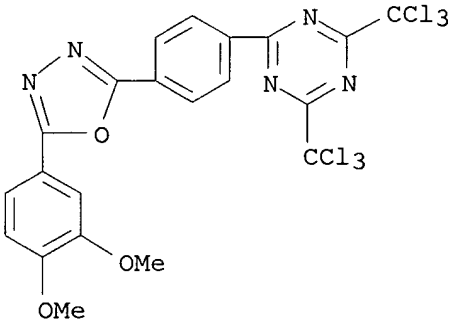
RN 125775-61-3 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(3-methoxyphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



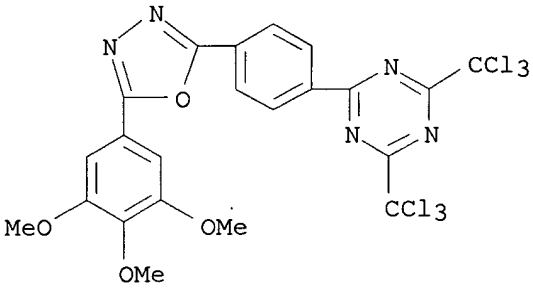
RN 125775-62-4 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(2-methoxyphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



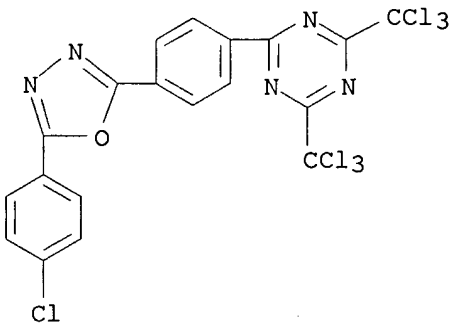
RN 125775-63-5 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(3,4-dimethoxyphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



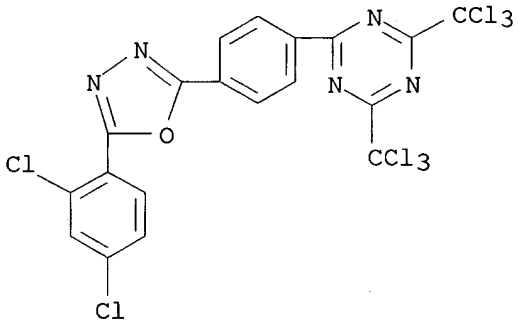
RN 125775-64-6 HCAPLUS
CN 1,3,5-Triazine, 2,4-bis(trichloromethyl)-6-[4-[5-(3,4,5-trimethoxyphenyl)-1,3,4-oxadiazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



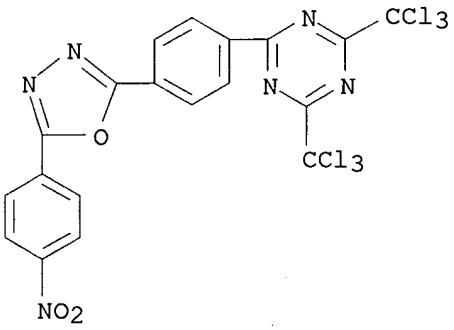
RN 125775-65-7 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(4-chlorophenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



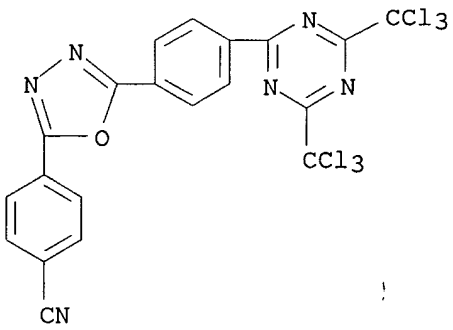
RN 125775-66-8 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(2,4-dichlorophenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



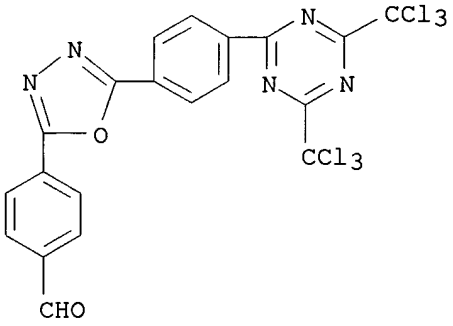
RN 125775-67-9 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(4-nitrophenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



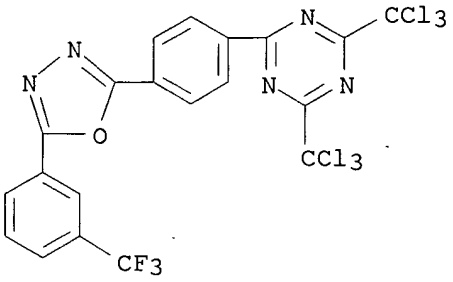
RN 125775-68-0 HCAPLUS
CN Benzonitrile, 4-[5-[4-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenyl]-1,3,4-oxadiazol-2-yl]- (9CI) (CA INDEX NAME)



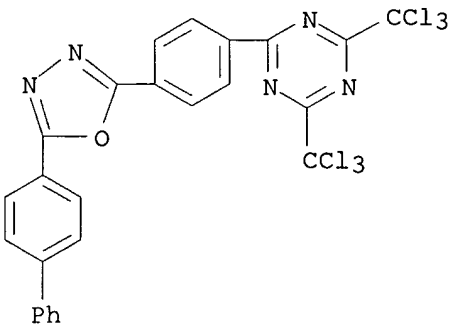
RN 125775-69-1 HCAPLUS
CN Benzaldehyde, 4-[5-[4-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenyl]-1,3,4-oxadiazol-2-yl]- (9CI) (CA INDEX NAME)



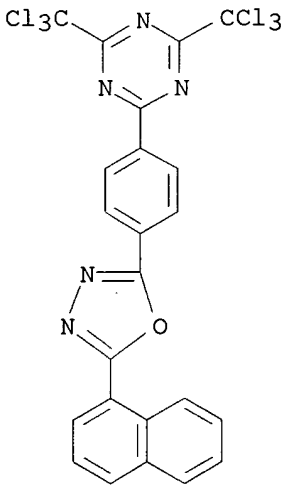
RN 125775-70-4 HCAPLUS
CN 1,3,5-Triazine, 2,4-bis(trichloromethyl)-6-[4-[5-[3-(trifluoromethyl)phenyl]-1,3,4-oxadiazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



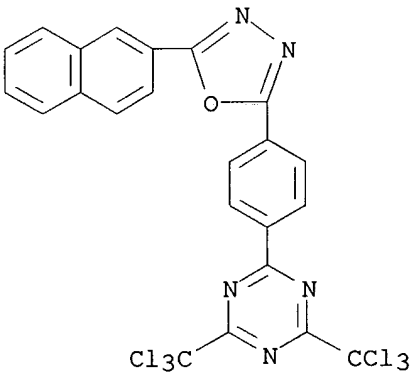
RN 125775-71-5 HCAPLUS
CN 1,3,5-Triazine, 2-[4-(5-[1,1'-biphenyl]-4-yl-1,3,4-oxadiazol-2-yl)phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



RN 125775-72-6 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(1-naphthalenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)

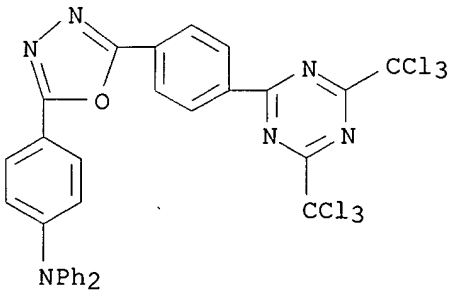


RN 125775-73-7 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(2-naphthalenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)

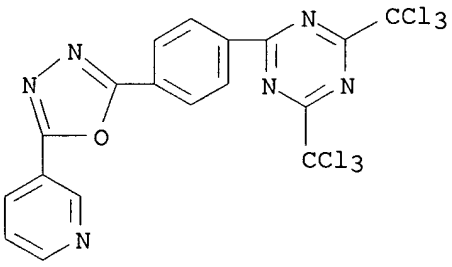


RN 125775-74-8 HCAPLUS

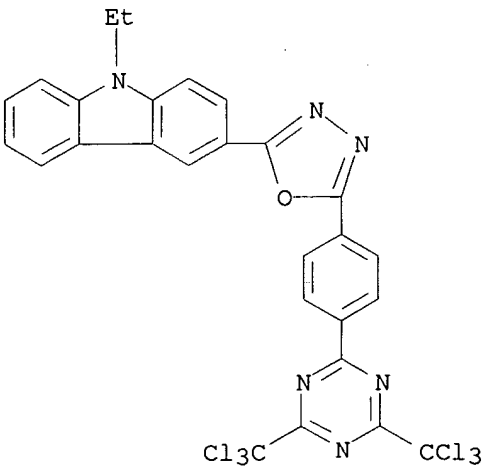
CN Benzenamine, 4-[5-[4-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenyl]-1,3,4-oxadiazol-2-yl]-N,N-diphenyl- (9CI) (CA INDEX NAME)



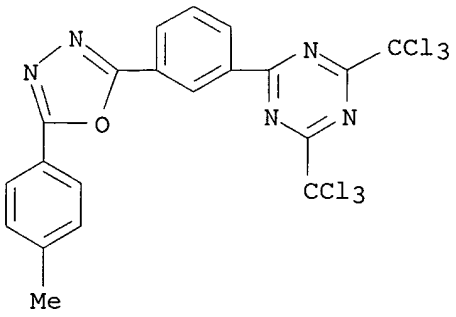
RN 125775-75-9 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(3-pyridinyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



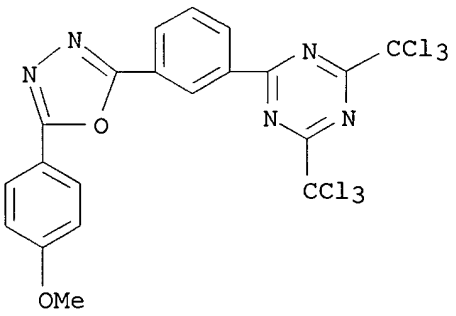
RN 125775-76-0 HCAPLUS
CN 9H-Carbazole, 3-[5-[4-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenyl]-1,3,4-oxadiazol-2-yl]-9-ethyl- (9CI) (CA INDEX NAME)



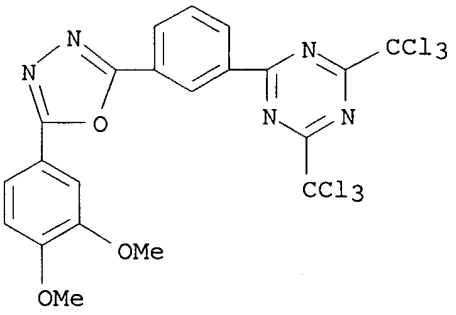
RN 125775-77-1 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-(4-methylphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



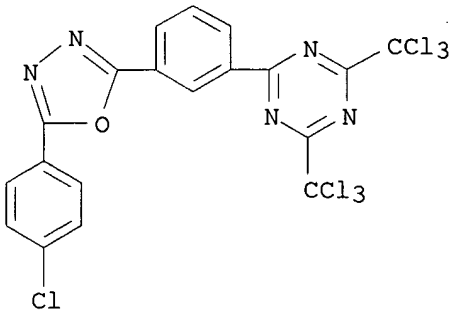
RN 125775-78-2 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-(4-methoxyphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



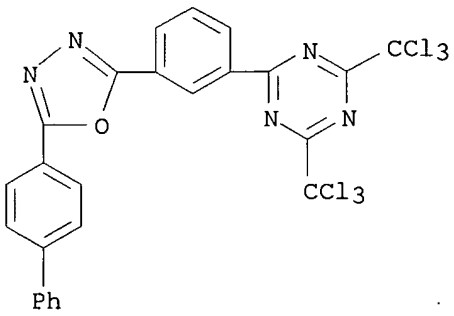
RN 125775-79-3 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-(3,4-dimethoxyphenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



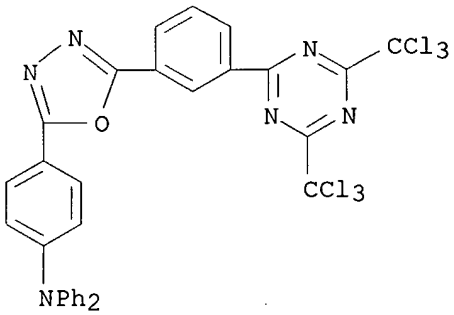
RN 125775-80-6 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-(4-chlorophenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



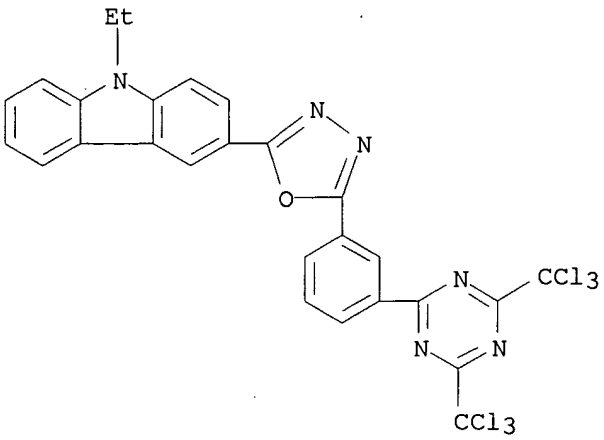
RN 125775-81-7 HCAPLUS
CN 1,3,5-Triazine, 2-[3-(5-[1,1'-biphenyl]-4-yl-1,3,4-oxadiazol-2-yl)phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



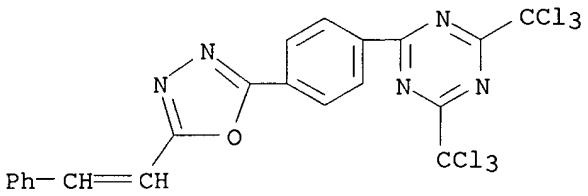
RN 125775-82-8 HCAPLUS
CN Benzenamine, 4-[5-[3-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenyl]-1,3,4-oxadiazol-2-yl]-N,N-diphenyl- (9CI) (CA INDEX NAME)



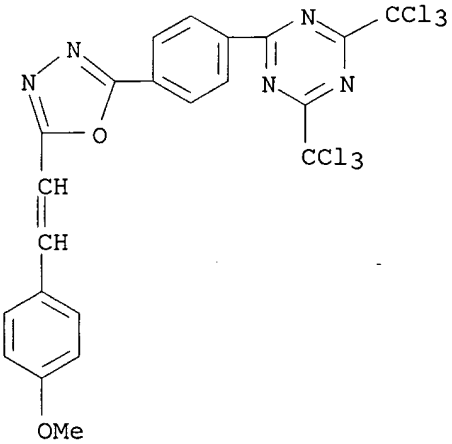
RN 125775-83-9 HCAPLUS
CN 9H-Carbazole, 3-[5-[3-[4,6-bis(trichloromethyl)-1,3,5-triazin-2-yl]phenyl]-1,3,4-oxadiazol-2-yl]-9-ethyl- (9CI) (CA INDEX NAME)



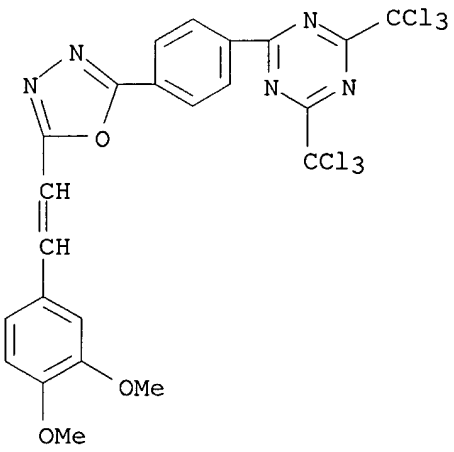
RN 125775-84-0 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-(2-phenylethenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



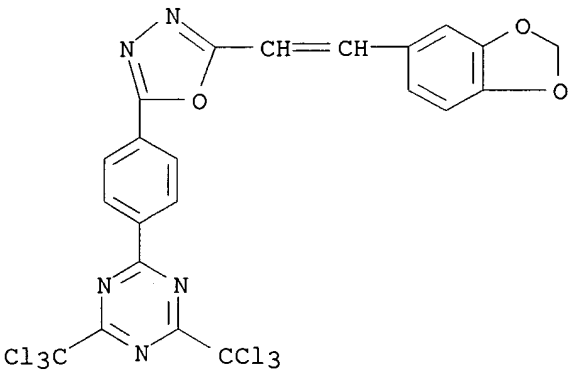
RN 125775-85-1 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-[2-(4-methoxyphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



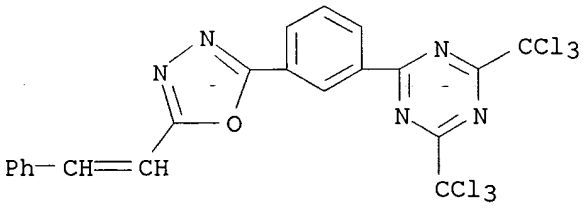
RN 125775-86-2 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-[2-(3,4-dimethoxyphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



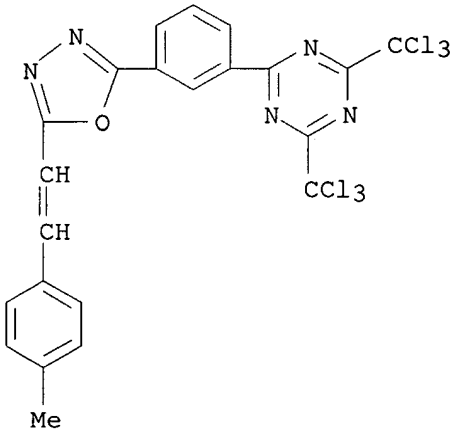
RN 125775-87-3 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[5-[2-(1,3-benzodioxol-5-yl)ethenyl]-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



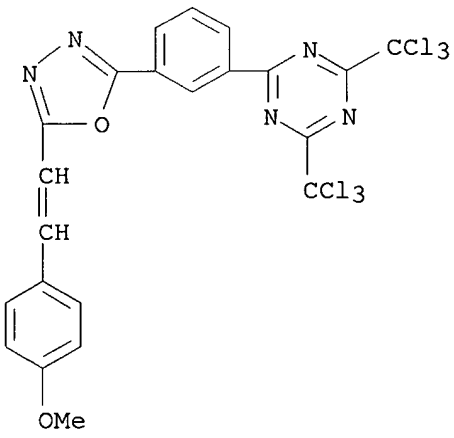
RN 125775-88-4 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-(2-phenylethenyl)-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



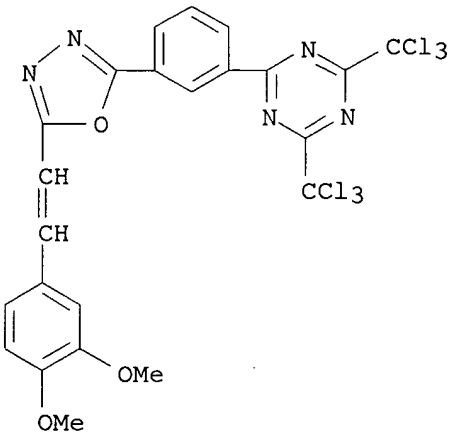
RN 125775-89-5 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-[2-(4-methylphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



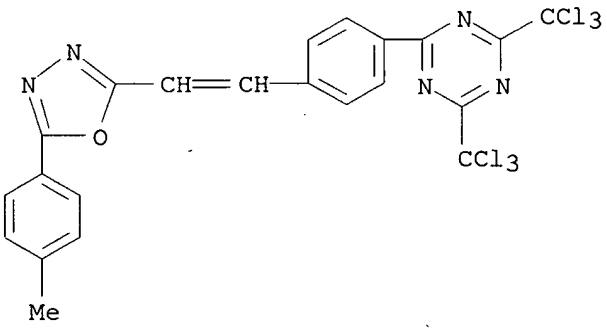
RN 125775-90-8 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-[2-(4-methoxyphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



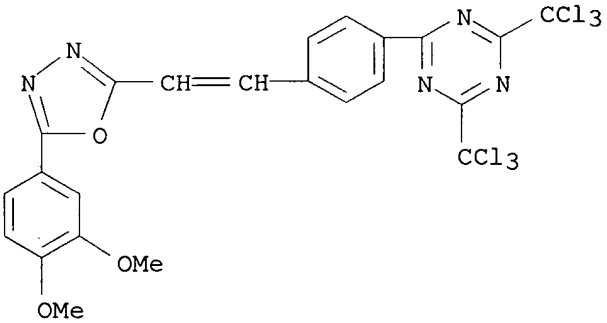
RN 125775-91-9 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[5-[2-(3,4-dimethoxyphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



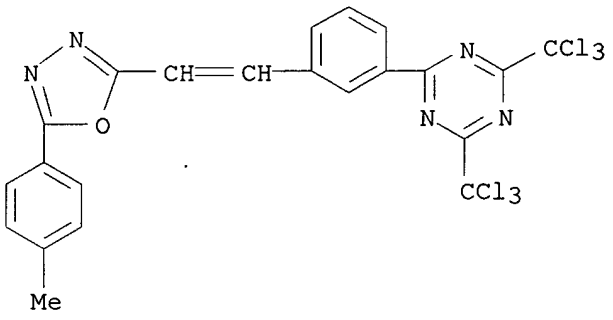
RN 125775-92-0 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[2-[5-(4-methylphenyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



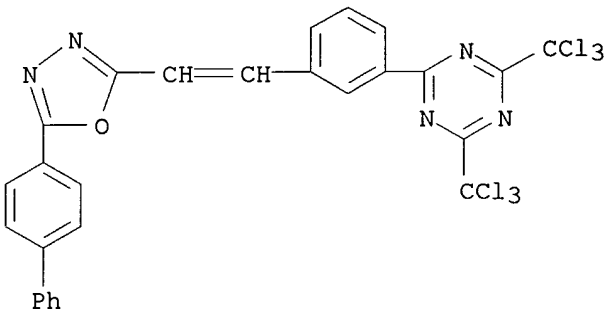
RN 125775-93-1 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[2-[5-(3,4-dimethoxyphenyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



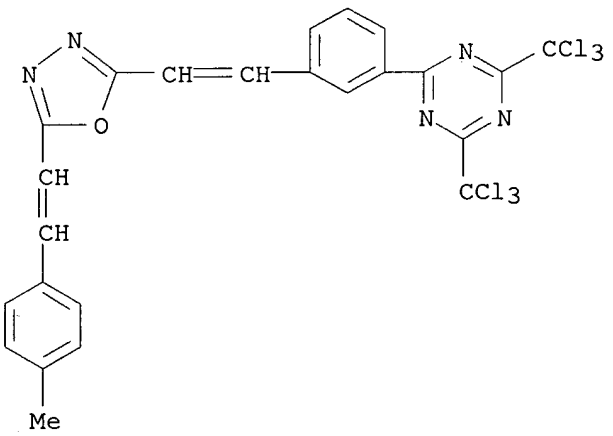
RN 125775-94-2 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[2-[5-(4-methylphenyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



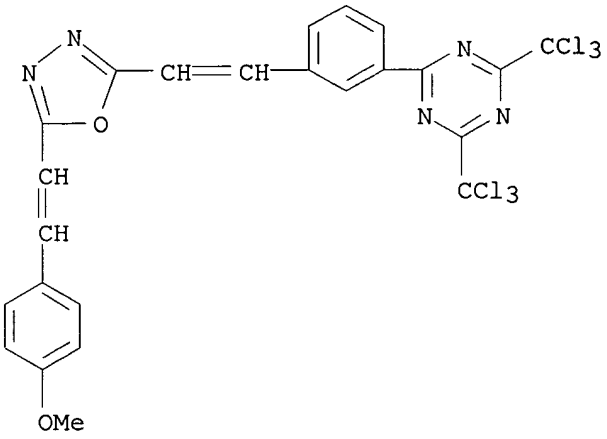
RN 125775-95-3 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[2-(5-[1,1'-biphenyl]-4-yl-1,3,4-oxadiazol-2-yl)ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



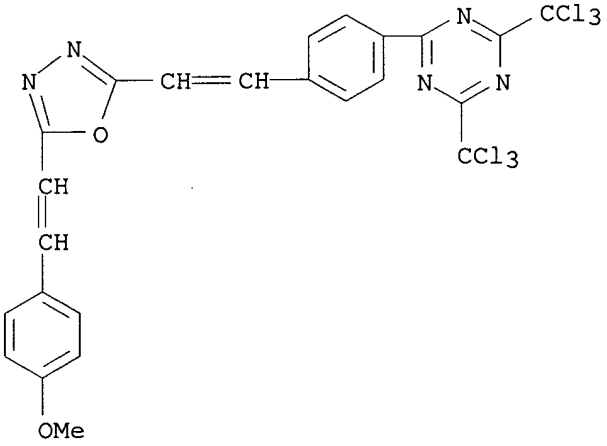
RN 125775-96-4 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[2-[5-[2-(4-methylphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



RN 125775-97-5 HCAPLUS
CN 1,3,5-Triazine, 2-[3-[2-[5-[2-(4-methoxyphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



RN 125790-08-1 HCAPLUS
CN 1,3,5-Triazine, 2-[4-[2-[5-[2-(4-methoxyphenyl)ethenyl]-1,3,4-oxadiazol-2-yl]ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)



IC ICM C07D413-10
ICS C07D413-14; G03C001-68; G03C001-72; G03F007-10
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 28, 42, 74
IT **125775-52-2P 125775-58-8P 125775-59-9P**
125775-60-2P 125775-61-3P 125775-62-4P
125775-63-5P 125775-64-6P 125775-65-7P
125775-66-8P 125775-67-9P 125775-68-0P
125775-69-1P 125775-70-4P 125775-71-5P
125775-72-6P 125775-73-7P 125775-74-8P
125775-75-9P 125775-76-0P 125775-77-1P
125775-78-2P 125775-79-3P 125775-80-6P
125775-81-7P 125775-82-8P 125775-83-9P
125775-84-0P 125775-85-1P 125775-86-2P
125775-87-3P 125775-88-4P 125775-89-5P
125775-90-8P 125775-91-9P 125775-92-0P
125775-93-1P 125775-94-2P 125775-95-3P
125775-96-4P 125775-97-5P 125790-08-1P

RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of, as photochem. free-radical crosslinking initiator)

L28 ANSWER 22 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1990:140011 Document No. 112:140011 4,6-Bis(trichloromethyl)-1,3,5-triazin-2-yl compounds as photoinitiators. Pawlowski, Georg; Erdman, Fritz; Lutz, Heidrun (Hoechst A.-G., Fed. Rep. Ger.). Eur. Pat. Appl. EP 332042 A1 19890913, 19 pp. DESIGNATED STATES: R: CH, DE, FR, GB, IT, LI, NL. (German). CODEN: EPXXDW. APPLICATION: EP 1989-103607 19890302. PRIORITY: DE 1988-3807378 19880307.

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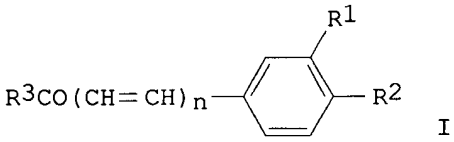


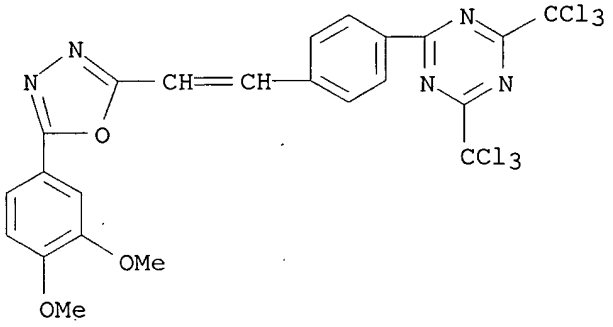
I

AB The compds. I [R1, R2 = H, bis(trichloromethyl)-s-triazinyl; R3 = (substituted) alkoxy, alkenyloxy, alkynyloxy, aryloxy, HO, halogen; n = 0, 1], useful as polymerization photoinitiators, are prepared Thus, Me 4-cyanobenzoate (prepared from H2NOH.HCl and 4-MeO2CC6H4CHO) was condensed with CCl3CN in the presence of AlBr3 and HCl to give Me 4-[4,6-bis(trichloromethyl)-s-triazin-2-yl]benzoate in 91% yield.

IT **125775-93-1P**
RL: PREP (Preparation)
(photoinitiators for polymerization, manufacture of)

RN 125775-93-1 HCAPLUS

CN 1,3,5-Triazine, 2-[4-[2-[5-(3,4-dimethoxyphenyl)-1,3,4-oxadiazol-2-yl]ethenyl]phenyl]-4,6-bis(trichloromethyl)- (9CI) (CA INDEX NAME)

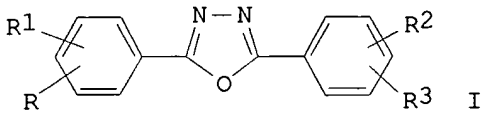


IC ICM C07D251-24
ICS G03C001-68; G03C001-72; G03F007-10

CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 28, 74

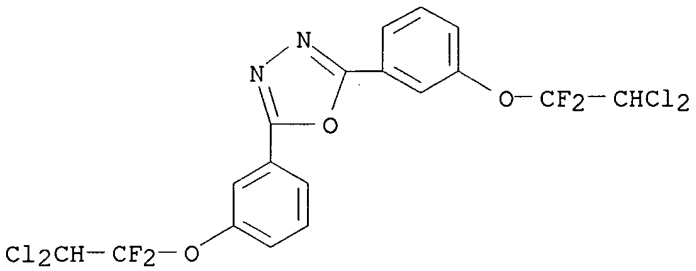
IT 125775-53-3P 125775-55-5P **125775-93-1P** 125899-46-9P
125989-27-7P 125989-28-8P 125989-29-9P 125989-30-2P 125989-31-3P
125989-32-4P 125989-33-5P 125989-35-7P 125989-36-8P 125989-37-9P
125989-38-0P 125989-39-1P 125989-40-4P 125989-41-5P 125989-42-6P
125989-43-7P 125989-44-8P 125989-45-9P
RL: PREP (Preparation)
(photoinitiators for polymerization, manufacture of)

L28 ANSWER 23 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1988:630892 Document No. 109:230892 Synthesis and insecticidal activity of some 2,5-(fluoroalkoxyphenyl)-1,3,4-oxadiazoles and their N,N'-dibenzoylhydrazine precursors. Idoux, John P.; Gibbs-Rein, Kathleen S.; Gupton, John T.; Cunningham, Glenn N. (Dep. Chem., Lamar Univ., Beaumont, TX, 77710, USA). Journal of Chemical and Engineering Data, 33(3), 385-8 (English) 1988. CODEN: JCEAAX. ISSN: 0021-9568. OTHER SOURCES: CASREACT 109:230892.
GI



I

AB Ten 2,5-(fluoroalkoxyphenyl)-1,3,4-oxadiazoles I [e.g., R = H; R1 = 4-(HCF2CF2O), 3-(HCF2CF2O); R2 = 2-Cl; R3 = 4-Cl] and 15 RR1C6H3CONHNHCOC6H3R2R3, with the same R-R3, were prepared and characterized by IR and NMR spectra. Thus, 4-(HCF2CF2O)C6H4CONHNH2 was treated with Na2CO3 and 2,4-Cl2C6H3COCl to give 92% 4-(HCF2CF2O)C6H4CONHNHCOC6H3Cl2-2,4, which was treated with POCl3 to give 90% I [R = H, R1 = 4-(HCF2CF2O), R2 = 2-Cl, R3 = 4-Cl].
IT **114467-48-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 114467-48-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis[3-(2,2-dichloro-1,1-difluoroethoxy)phenyl]- (9CI) (CA INDEX NAME)



CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 5
IT 114467-27-5P 114467-46-8P 114467-47-9P **114467-48-0P**
114467-49-1P 114467-50-4P 114467-51-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

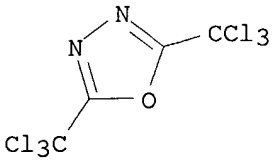
L28 ANSWER 24 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1975:479165 Document No. 83:79165 Synthesis of 2,5-substituted 1,3,4-oxadiazoles. Vigalok, I. V.; Ostrovskaya, A. V.; Svetlakov, N. V. (USSR). Khimiya Geterotsiklicheskikh Soedinenii (5), 713-14 (Russian) 1975. CODEN: KGSSAQ. ISSN: 0132-6244.
GI For diagram(s), see printed CA Issue.
AB Cyclization of (O2N)3CCH2CH2CO2H with N2H4.HCl in POCl3 at 85-95°

for 20-4 hrs gave 54% oxadiazole I [R = (O2N)3CCH2CH2]. Similarly, I [R = (O2N)2CFCH2CH2, (O2N)2CClCH2CH2, (O2N)2CMeCH2CH2, PhCH:CH] were prepared Condensation of R1CO2H [R1 = Cl3C, F3C(CF2)2, F3C(CF2)6] with N2H4.HCl in POCl3 gave R1CONHNHCOR1, which were cyclized by PCl5 to give I (R = R1).

IT **1202-16-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 1202-16-0 HCAPLUS

CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



CC 28-11 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 648-19-1P **1202-16-0P** 2127-69-7P 2574-21-2P 19473-91-7P 56368-91-3P 56368-92-4P 56368-93-5P 56368-94-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L28 ANSWER 25 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN

1974:552408 Document No. 81:152408 Mono-, di-, and trithiophosphonic acid esters as pesticides. Mildenberger, Hilmar; Staehler, Gerhard; Emmel, Ludwig (Farbwerke Hoechst A.-G.). Ger. Offen. DE 2254042 19740814, 29 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1972-2254042 19721104.

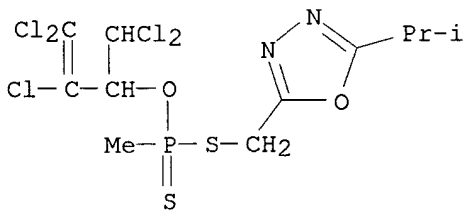
GI For diagram(s), see printed CA Issue.

AB Seventy-four S-oxadiazolylmethyl phosphonothioates [I, R = Me2CH, Me, Bu, EtOCH2; R1 = Me, Et, Pr, Bu, Me2CHCH2, Ph, 4-cyclohexenyl, etc.; X, Y, = O, S; R2 = Me2CH, Et, p-ClC6H4, Ph, allyl, cyclohexyl, PhCH2, Me2P(O)CH2CH2, O2NCH2CHCCl3, etc.] were prepared by the reaction of chloromethyloxadiazoles II with phosphonothioates, R1P(X)(YR2)SR4 (R4 = Na, NH4+, K, Et3NH+, pyridinium). E.g., II (R = Me2CH) and MeP(S)(OCHMe2)SNa gave I (R = Me2CH, X = S, R1 = Me, Y = O, R2 = Me2CH). Data was given for pesticidal activity of I. E.g., a 0.003% by weight aqueous emulsion of I (R = Me, X = S, R1 = Et, Y = O, R2 = Et) killed Tetranychus urticae.

IT **54066-71-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

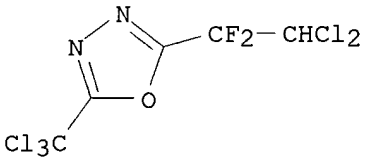
RN 54066-71-6 HCAPLUS

CN Phosphonodithioic acid, methyl-, S-[[5-(1-methylethyl)-1,3,4-oxadiazol-2-yl]methyl] O-[2,3,3-trichloro-1-(dichloromethyl)-2-propenyl] ester (9CI) (CA INDEX NAME)



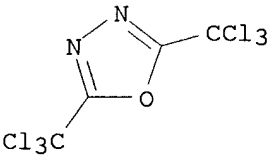
IC C07F; C07D; A01N
CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 5, 28
IT 54066-64-7P 54066-65-8P 54066-66-9P 54066-67-0P 54066-68-1P
54066-69-2P 54066-70-5P **54066-71-6P** 54066-72-7P
54066-73-8P 54066-74-9P 54066-75-0P 54066-76-1P 54066-77-2P
54066-78-3P 54066-79-4P 54066-80-7P 54066-81-8P 54066-82-9P
54066-83-0P 54066-84-1P 54066-85-2P 54066-86-3P 54066-87-4P
54066-88-5P 54066-89-6P 54066-90-9P 54066-91-0P 54066-92-1P
54066-93-2P 54066-94-3P 54066-95-4P 54066-96-5P 54066-97-6P
54066-98-7P 54066-99-8P 54067-00-4P 54067-01-5P 54067-02-6P
54067-03-7P 54067-04-8P 54067-05-9P 54067-06-0P 54122-19-9P
54261-13-1P 54261-14-2P 54343-86-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L28 ANSWER 26 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1974:449647 Document No. 81:49647 Heterocycles from methyl 3,3-dichloro-2,2-difluoropropionimidate. Roechling, Hans; Hoerlein, Gerhard (Farbwerke Hoechst A.-G., Frankfurt am Main, Fed. Rep. Ger.). Justus Liebigs Annalen der Chemie (3), 504-22 (German) 1974. CODEN: JLACBF. ISSN: 0075-4617.
GI For diagram(s), see printed CA Issue.
AB Triazoles (I, R = e.g. H, PhO2C, Cl3CS, BuNHCO, or 3,4-Cl2C6H3; R1 = e.g. H, HO, Cl, HS, or PhNHCS2), oxadiazoles (II, R2 = e.g. H2N, EtO2CNH, MeNHCONH, NCSCH2, 4-O2NC6H4OCH2, or CCl3; and III, R3 = e.g. Me, CCl3, C6H4CF3-3, CH2Cl, CH2S2CN Et2,CH2SCN, CH2SPh, or CH2OC6H3Cl2-3,4), thiadiazoles (IV, R4 = e.g. AcNH, MeNHCONH, ClCH2CONH, MeONMeCONMe, or Me2NCH:N; and V, R5 = Cl, OEt, OBu, or S2CNEt2), the pyrimidine VI, and quinazolines [VII, n = 0 or 1; R6 = e.g. SCN, SP(S)(OEt)2, CN, NH2, NHCONHMe, or O2CNH Bu; R7 = H or Br; R8 = H, Cl, or HO; or R7R8 = benzo] were prepared from HN:C(OMe)CF2CHCl2 (VIII) or its derivs. Thus, VIII reacted with H2NNHCOR9 (R9 = H, OEt, or NH2) to give HN:C(CF2CHCl2)NHNHCOR9 (IX), which were cyclized to give I (R = H; R1 = H or HO). I (R = Ph, R1 = HS) was prepared by reaction of Cl2CHCF2CONHNH2 with PhNCS. II (R2 = H2N or ClCH2) were prepared by cyclization of IX (R9 = NH2) or Cl2CHCF2CONHNHCOCH2Cl, resp. Reaction of VIII with NH2OH gave H2NC(CF2CHCl2):NOH, which on treatment with (R10CO)2O (R10 = e.g. Me, CH2Cl, CHCl2, or Ph) gave III (R3 = R10). Reaction of VIII with H2NNHCSNH2 in AcOH gave IV (R4 = AcNH). HN:C(CF2CHCl2)NH2.AcOH, prepared from VIII and AcONH4, was treated with Cl3CSCl or successively with MeCOCH2CO2Et and PCl5-POCl3 to give V (R5 = Cl) or VI, resp. VII (n = 0, R6 = Cl) or VII (n = 1, R6 = OH) were prepared by successive reaction of VIII with anthranilates (X) andPCl5-POCl3 or of Cl2CHCF2COCl with 2-H2NC6H4CO2Me and NH2OH, resp. Other derivs. were obtained from the hetero-cycles by corresponding substitution reactions.
IT **53644-27-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(pepn. and nucleophilic substitution of)
RN 53644-27-2 HCAPLUS
CN 1,3,4-Oxadiazole, 2-(2,2-dichloro-1,1-difluoroethyl)-5-(trichloromethyl)- (9CI) (CA INDEX NAME)



CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
IT 53644-26-1 **53644-27-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(pepn. and nucleophilic substitution of)

L28 ANSWER 27 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1974:448855 Document No. 81:48855 Soil antinitrification agents containing 2,5-bis(trichloromethyl)-1,3,4-oxadiazole. Komaki, Norio; Ohshio, Hiromichi; Matsuo, Masatoshi (Sumitomo Chemical Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 48096353 19731210 Showa, 3 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1972-29551 19720323.
AB The title compound is effective in preventing nitrification of N fertilizers, hence minimizing the loss of N from the soil. Thus, 50 g alluvial soil was mixed with 2,5-bis(trichloromethyl)-1,3,4-oxadiazole (10 ppm with respect to dried soil) and urea (10 mg in terms of N); the H2O content of the soil was adjusted to 60%; the soil mixture was incubated at 30° for 4 weeks; the nitrification of urea was prevented completely.
IT **1202-16-0**
RL: BIOL (Biological study)
(as nitrification inhibitor)
RN 1202-16-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)

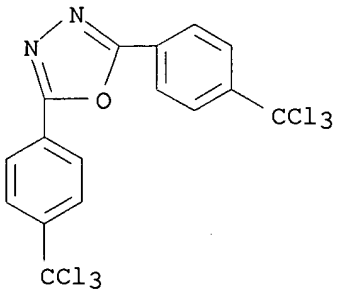


NCL 4A0; 30F371.22
CC 19-3 (Fertilizers, Soils, and Plant Nutrition)
Section cross-reference(s): 10
IT **1202-16-0**
RL: BIOL (Biological study)
(as nitrification inhibitor)

L28 ANSWER 28 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1973:159616 Document No. 78:159616 2,5-Bis[p-(trichloromethyl)phenyl]-1,3,4-oxadiazole. Moshchinskaya, N. K.; Sokolenko, V. N.; Suchilina, S. P. (Dnepropetrovsk Chemical-Technological Institute). U.S.S.R. SU 364614 19721228 From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1973, 50(5), 75. (Russian). CODEN: URXXAF. APPLICATION: SU 1970-1400680 19700127.
GI For diagram(s), see printed CA Issue.
AB The title compound (I) was prepared by direct chlorination of

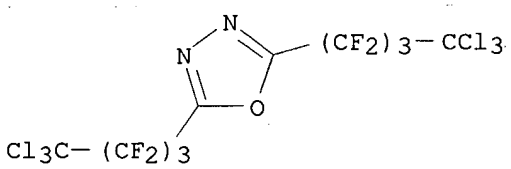
2,5-di-p-tolyl-1,3,4-oxadiazole with Cl(g) under irradiation at 60-70° in a solvent, e.g., CCl4.

IT **41405-97-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 41405-97-4 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis[4-(trichloromethyl)phenyl]- (9CI) (CA INDEX NAME)



IC C07D; C07C
CC 28-11 (Heterocyclic Compounds (More Than One Hetero Atom))
IT **41405-97-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

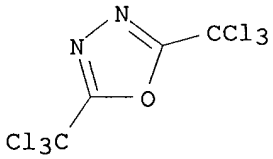
L28 ANSWER 29 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1971:529729 Document No. 75:129729 Reactions of hydrazides of perfluoro acids. III. Preparation of N,N'-perfluoroacylhydrazines, and their cyclization. Masalova, Z. I.; Lopyrev, V. A. (Leningr. Tekhnol. Inst. Tsellyul.-Bum. Prom., Leningrad, USSR). Zhurnal Organicheskoi Khimii, 7(7), 1408-10 (Russian) 1971. CODEN: ZORKAE. ISSN: 0514-7492.
GI For diagram(s), see printed CA Issue.
AB The reaction of H2NNH2. H2O with RCOCl [R is CF3(CF2)3, CCl3(CF2)3, perfluorocyclohexyl, or CF3(CF2)5] gave 83-92% RCONHNHCOR (I). The cyclization of I by heating with PCl5 gave 85-90% 2R,5R-disubstituted-1,3,4-oxadiazoles (II).
IT **33843-74-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 33843-74-2 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(4,4,4-trichloro-1,1,2,2,3,3-hexafluorobutyl)- (8CI) (CA INDEX NAME)



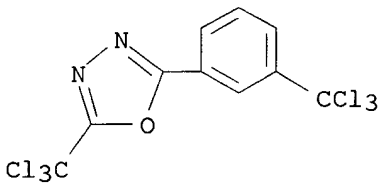
CC 28 (Heterocyclic Compounds (More Than One Hetero Atom))
IT 33843-69-5P 33843-70-8P 33843-71-9P 33843-72-0P 33843-73-1P
33843-74-2P 33843-75-3P 33843-80-0P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

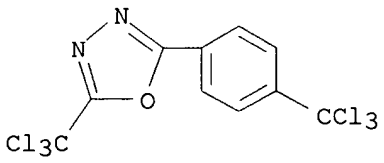
L28 ANSWER 30 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1970:435285 Document No. 73:35285 2-Phenyl-5-(trichloromethyl)-1,3,4-oxadiazoles. A new class of antimalarial substances. XXI. Hutt, Marland P.; Elslager, Edward F.; Werbel, Leslie M. (Dep. of Chem., Parke, Davis and Co., Ann Arbor, MI, USA). Journal of Heterocyclic Chemistry, 7(3), 511-18 (English) 1970. CODEN: JHTCAD. ISSN: 0022-152X.
AB An investigation of hybrids of 2,5-dimethyl-1,3,4-oxadiazole and α,α,α,α',α',α'-hexachloro-p-xylene as potential antimalarial agents led to the synthesis of representative 2-phenyl-5-(trichloromethyl)-1,3,4-oxadiazoles and related trichloromethyl 1,2,4-oxadiazole, 1,3,4-oxadiazoles, and 1,3,4-thiadiazole from benzoic acid hydrazides.
IT **1202-16-0P 26313-67-7P 26313-68-8P 26313-69-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 1202-16-0 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 26313-67-7 HCAPLUS
CN 1,3,4-Oxadiazole, 2-(trichloromethyl)-5-[3-(trichloromethyl)phenyl]- (9CI) (CA INDEX NAME)

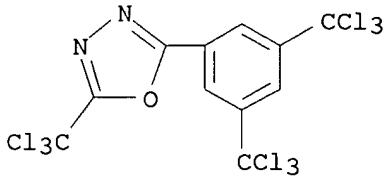


RN 26313-68-8 HCAPLUS
CN 1,3,4-Oxadiazole, 2-(trichloromethyl)-5-[4-(trichloromethyl)phenyl]- (9CI) (CA INDEX NAME)



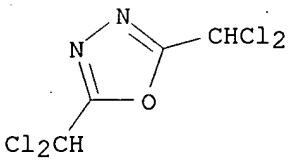
RN 26313-69-9 HCAPLUS

CN 1,3,4-Oxadiazole, 2-[3,5-bis(trichloromethyl)phenyl]-5-(trichloromethyl)- (9CI) (CA INDEX NAME)



CC 28 (Heterocyclic Compounds (More Than One Hetero Atom))
IT **1202-16-0P** 1822-97-5P 5378-45-0P **26313-67-7P**
26313-68-8P 26313-69-9P 27389-42-0P 27389-43-1P
27389-44-2P 27389-45-3P 27389-46-4P 27389-48-6P 27389-49-7P
27389-51-1P 27389-53-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L28 ANSWER 31 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1968:402492 Document No. 69:2492 Reaction of chloral with hydrazine. Yiannios, C. N.; Hazy, A. C.; Karabinos, J. V. (Olin Res. Center, New Haven, CT, USA). Journal of Organic Chemistry, 33(5), 2076-8 (English) 1968. CODEN: JOCEAH. ISSN: 0022-3263.
AB The reaction of chloral with hydrazine was reinvestigated. Cl3CONHN:CHCHCl2 and Cl3CONHN:CCl3 were isolated and their structures elucidated by spectral methods. 10 references.
IT **16054-40-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 16054-40-3 HCAPLUS
CN 1,3,4-Oxadiazole, 2,5-bis(dichloromethyl)- (8CI, 9CI) (CA INDEX NAME)



CC 23 (Aliphatic Compounds)
IT 14918-94-6P 16054-33-4P 16054-39-0P **16054-40-3P**
16054-41-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

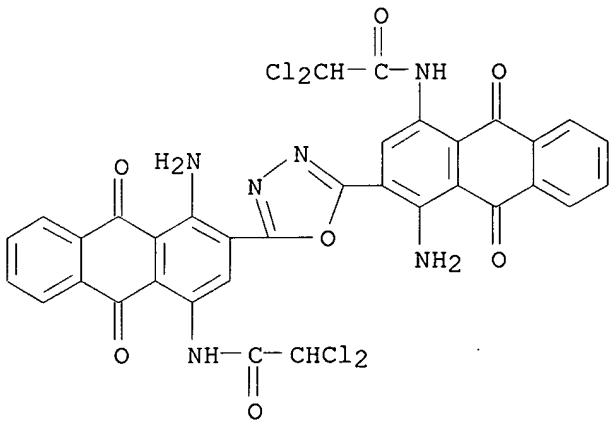
L28 ANSWER 32 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1965:432247 Document No. 63:32247 Original Reference No. 63:5794d-f 2,5-Bis(1-amino-4-acylamino-2-anthraquinonyl)-1,3,4-oxadiazoles. (CIBA Ltd.). BE 639456 19640430, 20 pp. (Unavailable). PRIORITY: CH 19621102.
GI For diagram(s), see printed CA Issue.
AB Vat dyes of the general formula I give fast blue shades on cotton. Thus, a mixture of 2,5-bis(1,4-diamino-2-anthraquinonyl)-1,3,4-oxadiazole (II) 5.4 and AcCl 2.5 in PhNO2 150 parts is heated 4 hrs. at 110-15° to give 2,5-bis(1-amino-4-acetamido-2-anthraquinonyl)-1,3,4-oxadiazole, needles, reddish blue on cotton. Similarly prepared are the following I (R

= R1) (R and color on cotton given): Et, reddish blue; Pr, reddish blue; PhCH:CH, blue; ClCH2, blue. II 5.4 in PhNO2 60 parts is heated with 0.9 part AcCl and the product is heated with 2.8 parts BzCl to give I (R = Me, R1 = Ph), needles, reddish blue on cotton. Similarly prepared are the following I (R, R1, and color on cotton given): Ph, Et, reddish blue; Me, 2-furyl, blue; Me, Et, reddish blue.

IT **4485-37-4**, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2,2-dichloroacetamido)- **4517-51-5**, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2,2,2-trichloroacetamido)- (preparation of)

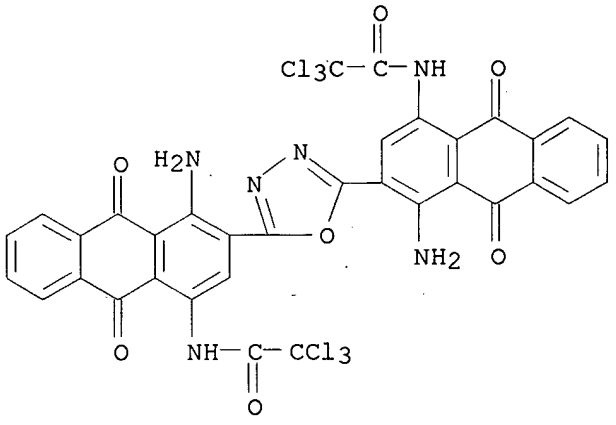
RN 4485-37-4 HCAPLUS

CN Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2,2-dichloroacetamido)- (7CI, 8CI) (CA INDEX NAME)



RN 4517-51-5 HCAPLUS

CN Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2,2,2-trichloroacetamido)- (7CI, 8CI) (CA INDEX NAME)



CC 46 (Dyes)

IT 2405-18-7, Anthraquinone, 1,4-diamino-5-[(2-hydroxyethyl)amino]- 2405-19-8, Butyramide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis- 2952-35-4, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[4-acetamido-1-amino- 2952-36-5, Propionamide,

N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis- 2952-38-7, Cinnamamide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis- 2952-39-8, Anthraquinone, 4-acetamido-4'-benzamido-2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino- 2952-40-1, Propionamide, N-[4-amino-3-[5-(1-amino-4-benzamido-2-anthraquinonyl)-1,3,4-oxadiazol-2-yl]-1-anthraquinonyl]- 3063-87-4, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2-chloroacetamido)- 3274-75-7, 2-Furamide, N-[3-[5-(4-acetamido-1-amino-2-anthraquinonyl)-1,3,4-oxadiazol-2-yl]-4-amino-1-anthraquinonyl]- 4485-36-3, Butyramide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis[3-methyl- **4485-37-4**, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2,2-dichloroacetamido)- 4485-38-5, Propionamide, N-[3-[5-(4-acetamido-1-amino-2-anthraquinonyl)-1,3,4-oxadiazol-2-yl]-4-amino-1-anthraquinonyl]- 4517-48-0, Propionamide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis[2-methyl- 4517-49-1, Propionamide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis[2-chloro- 4517-50-4, Propionamide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis[2,2-dimethyl- **4517-51-5**, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2,2,2-trichloroacetamido)- 4630-52-8, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-[2-(cyclohexyloxy)acetamido]- 4630-53-9, Octanamide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis- 4630-54-0, Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2-methoxyacetamido)- 4630-55-1, Succinamic acid, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]di- 6609-81-0, Butyramide, N,N'-[1,3,4-oxadiazole-2,5-diylbis(4-amino-3,1-anthraquinonylene)]bis[2-ethyl-
(preparation of)

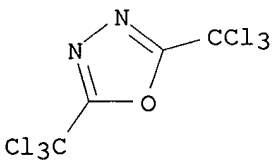
L28 ANSWER 33 OF 33 HCAPLUS COPYRIGHT 2004 ACS on STN
1965:29721 Document No. 62:29721 Original Reference No. 62:5282b-g
Nematocides. Sousa, Anthony A.; Chitwood, Henry C.; Durden, John A. (Union Carbide Corp.). FR 1363235 19640612, 32 pp. (Unavailable).
PRIORITY: US 19620417.
GI For diagram(s), see printed CA Issue.
AB Disubstituted 1,2,4-and 1,3,4-oxadiazoles are active nematocides. These compds. which have a very high and long-lasting activity can be prepared by treating, at a high temperature, RCX:NOH, where X is halide, with an organic nitrile, by treating 1 mole RCX:NOH with 2 moles R1C(:NH)OR2, by fusing a molar mixture of RC(:NOH)NH2.HX with an inorg. or organic acid and an organic amide, by treating RC(:NOH)NH2 with an organic acid anhydride, by acetylation of an organic amidoxime followed by a cyclization of the acetylated amidoxime, R1CO2N:CRNH2, or by acetylation of RCONHNH2 followed by cyclization into 1,3,4-oxadiazoles. Thus, 19.7 g. Cl3CCCl:NOH and 10.3 g. PhCN in 100 cc. toluene was refluxed 24 hrs. to give 7% I (R = Cl3C, R1 = Ph), b0.2 105-6°, m. 70°. PhCCl:NOH(15.5g.) and 28.4 g. EtOCPh:NH in Et2O kept 3 hrs. at 20° gave 90% I (R = R1 = Ph), m. 109°. To 92.7 g. (Cl3CCO)2O was added dropwise 15.1 g. Me2CHC(:NOH)NH2 at 40-50° and the mixture heated 1 hr. at 120° to give 74% I (R = iso-Pr, R1 = Cl3C), b1 48-9°, n20.6D 1.4801. BzNH-NH2 (6.8 g.) was treated slowly with 16 g. (Cl3CCO)2O, 40 g. POCl3 added, and the mixture heated 4 hrs. on a steam bath to give 68% 2-phenyl-5-trichloromethyl-1,3,4-oxadiazole, m. 65-6.5°. MeC(:NOH)NH2 (7.4 g.) was added gradually with cooling to 77.25 g. (Cl3CCO)2O and the mixture heated 1 hr. at 130-40° to give 70% I (R = Me, R1 = CCl3) (II), b5 54°. A higher yield (84%) of II was obtained by heating 37 g. MeC(:NOH)NH2 in 320 g. fused Cl3CCO2H with 309 g. (Cl8CCO)2O 20 min. at 110°. The following I were similarly prepared (R, R1, and b.p. given): Ph, Cl3C, b0.01 95-6°; 2-pyridyl,

Cl3C, 44-5°; Me, CH2Cl, b90 112°; Me, CHCl2, b50 160°; CH2Cl, Ph, -- (m. 58°); Cl3C(CH2)2, Cl3C, b0.4 112°; Et, Cl3C, b0.5 39°; CH2Cl, Cl3C, b1.5 66.5°; CH2Cl, CHCl2, b0.7 62-4°. 2-Methyl-5-trichloromethyl-1,3,4-oxadiazole m. 49°. Some of the compds. are also effective as broad spectrum fungicides, while others, e.g. 3-trichloromethyl-5-methyl- and 3-trichloromethyl-5-phenyl-1,2,4-oxadiazole, are also effective insecticides.

IT **1202-16-0**, 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)-
(preparation of)

RN 1202-16-0 HCAPLUS

CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IC AOLN; C07D

CC 38 (Heterocyclic Compounds (More Than One Heterc Atom))

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3-benzyl-5-(trichloromethyl)- 1823-01-4, 1,2,4-Oxadiazole,
3-(p-chlorobenzyl)-5-(trichloromethyl)- 1823-02-5, Pyridine,
4-[5-(trichloromethyl)-1,2,4-oxadiazol-3-yl]- 1823-03-6, Pyridine,
3-[5-(trichloromethyl)-1,2,4-oxadiazol-3-yl]-, hydrochloride 1920-57-6,
1,2,4-Oxadiazole, 3,3'-methylenebis[5-(trichloromethyl)- 1920-58-7,
1,2,4-Oxadiazole, 3,3'-tetramethylenebis[5-(trichloromethyl)- 3706-59-0,
1,2,4-Oxadiazole, 3-allyl-5-(trichloromethyl)- 3706-60-3,
1,2,4-Oxadiazole, 5-(diiodomethyl)-3-phenyl- 3706-61-4,
1,2,4-Oxadiazole, 3-(p-nitrophenyl)-5-(trichloromethyl)- 3706-62-5,
1,2,4-Oxadiazole, 3-(5-nitro-2-furyl)-5-(trichloromethyl)- 3949-66-4,
1,2,4-Oxadiazole, 5,5'-octamethylenebis[3-(trichloromethyl)- 3980-25-4,
3,3'-Bi-1,2,4-oxadiazole, 5,5'-bis(chloromethyl)- 4168-26-7,
1,2,4-Oxadiazole, 5,5'-ethylenebis[3-(trichloromethyl)- 4491-00-3,
3,3'-Bi-1,2,4-oxadiazole, 5,5'-bis(trichloromethyl)-
(preparation of)

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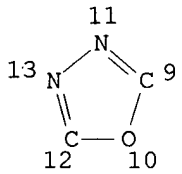
L5 STR



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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
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L27 2 SEA FILE=CAOLD ABB=ON PLU=ON L7

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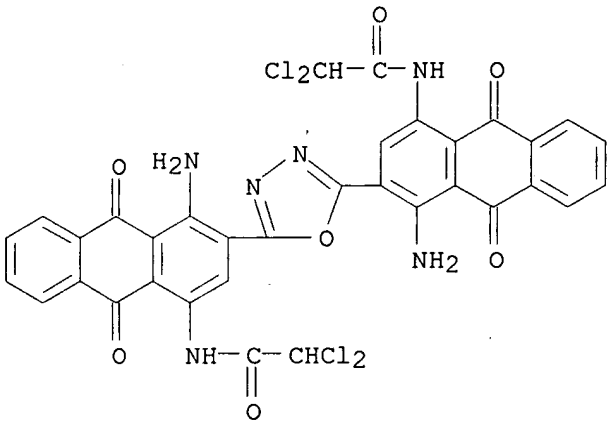
L27 ANSWER 1 OF 2 CAOLD COPYRIGHT 2004 ACS on STN
AN CA63:5794d CAOLD
TI 2,5-bis(1-amino-4-acylamino-2-anthraquinonyl)-1,3,4-oxadiazoles
PA CIBA Ltd.
DT Patent

PATENT NO.	KIND	DATE
BE 639456		
FR 1372943		
GB 1009929		

IT 2405-16-5 2405-17-6 2405-18-7 2952-35-4 4485-36-3
4485-37-4 4517-48-0 4517-49-1 4517-50-4 **4517-51-5**
4630-52-8 4630-53-9 4630-54-0 4630-55-1 6609-81-0
IT **4485-37-4** **4517-51-5**
RN 4485-37-4 CAOLD
CN Anthraquinone, 2,2'-(1,3,4-oxadiazole-2,5-diyl)bis[1-amino-4-(2,2-dichloroacetamido)- (7CI, 8CI) (CA INDEX NAME)



RN 4517-51-5 CAOLD
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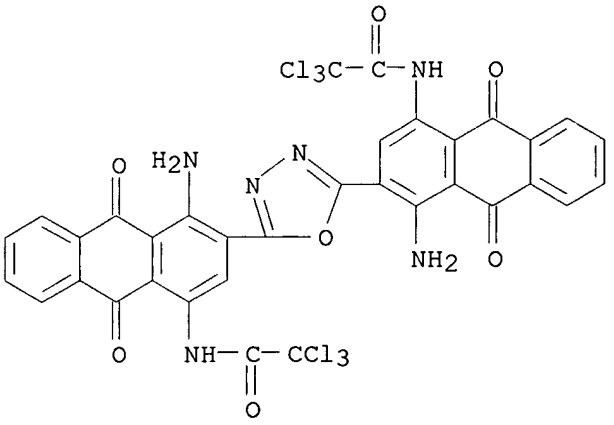

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4630-52-8 4630-53-9 4630-54-0 4630-55-1 6609-81-0

L27 ANSWER 2 OF 2 CAOLD COPYRIGHT 2004 ACS on STN
AN CA62:5282c CAOLD
TI nematocides
AU Sousa, Anthony A.; Chitwood, H. C.; Durden, J. A., Jr.
DT Patent

PATENT NO.	KIND	DATE
PI FR 1363235		
DE 1181980		
US 3192103		1965

IT 888-71-1 1186-61-4 1192-80-9 1192-81-0 1193-77-7 1193-78-8
1194-01-0 1195-24-0 1195-25-1 1195-26-2 1195-29-5 1195-30-8
1196-98-1 1196-99-2 1199-49-1 1199-50-4 1202-15-9
1202-16-0 1208-05-5 1208-06-6 1208-07-7 1246-06-6

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1822-99-7 1823-00-3 1823-01-4 1823-02-5 1823-03-6 1920-57-6
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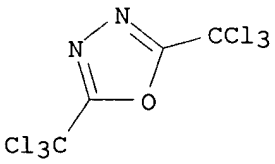
IT **1202-16-0**
RN 1202-16-0 CAOLD
CN 1,3,4-Oxadiazole, 2,5-bis(trichloromethyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



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